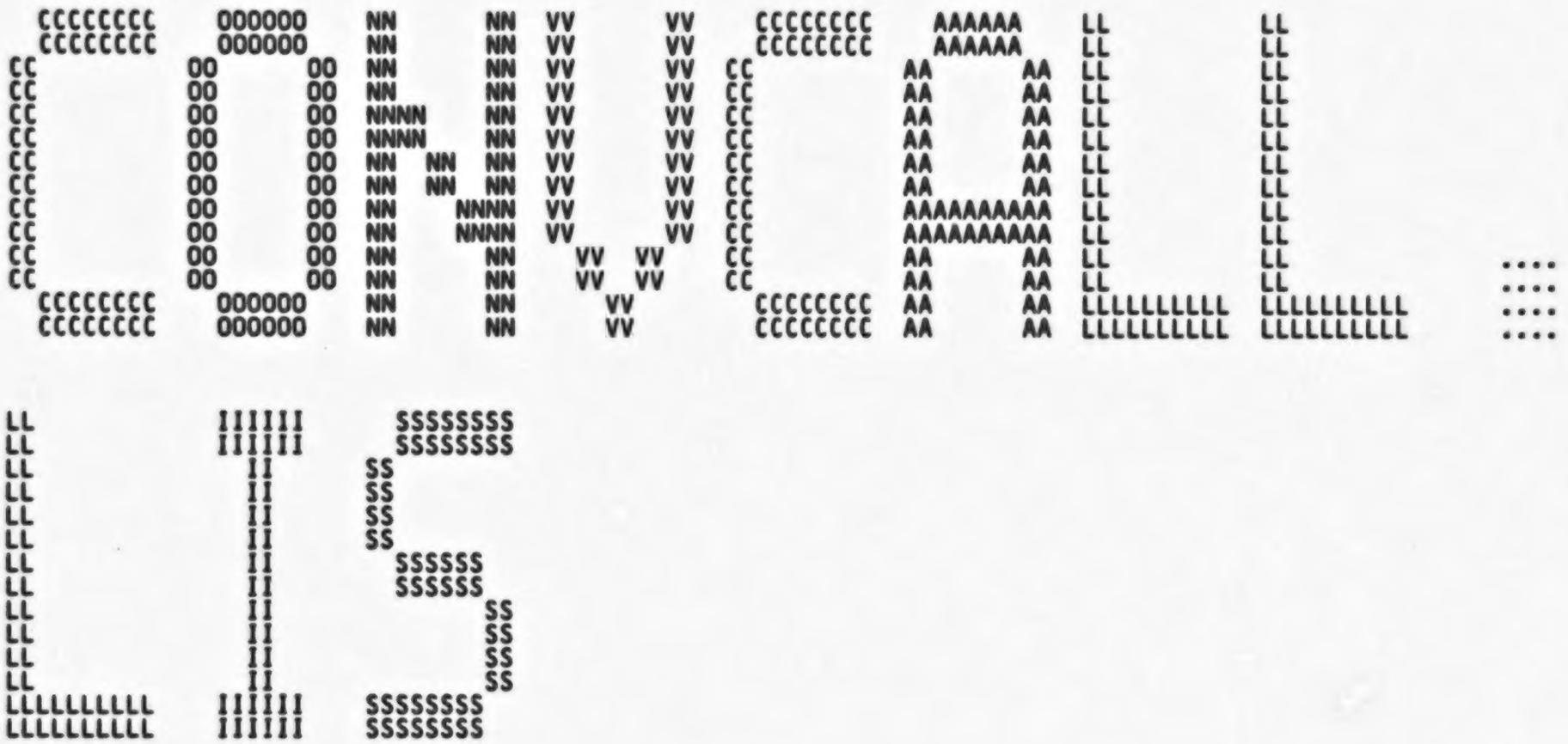
I 6

```
   CCCCCCCCCCCC     000000000     NNN         NNN  VVV         VVV
   CCCCCCCCCCCC     000000000     NNN         NNN  VVV         VVV
   CCCCCCCCCCCC     000000000     NNN         NNN  VVV         VVV
CCC              000         000  NNN         NNN  VVV         VVV
CCC              000         000  NNN         NNN  VVV         VVV
CCC              000         000  NNN         NNN  VVV         VVV
CCC              000         000  NNNNNN      NNN  VVV         VVV
CCC              000         000  NNNNNN      NNN  VVV         VVV
CCC              000         000  NNNNNN      NNN  VVV         VVV
CCC              000         000  NNN   NNN   NNN  VVV         VVV
CCC              000         000  NNN   NNN   NNN  VVV         VVV
CCC              000         000  NNN   NNN   NNN  VVV         VVV
CCC              000         000  NNN      NNNNNN  VVV         VVV
CCC              000         000  NNN      NNNNNN  VVV         VVV
CCC              000         000  NNN      NNNNNN  VVV         VVV
CCC              000         000  NNN         NNN     VVV   VVV
CCC              000         000  NNN         NNN     VVV   VVV
CCC              000         000  NNN         NNN     VVV   VVV
   CCCCCCCCCCCC     000000000     NNN         NNN        VVV
   CCCCCCCCCCCC     000000000     NNN         NNN        VVV
   CCCCCCCCCCCC     000000000     NNN         NNN        VVV
```

FILEID**CONVCALL



```
;  1     0001  0 %TITLE  'VAX-11 CONVERT'
;  2     0002  0 MODULE  CONV$CALL       ( IDENT='V04-000',
;  3     0003  0                         OPTLEVEL=3
;  4     0004  0                         ) =
;  5     0005  0
;  6     0006  1 BEGIN
;  7     0007  1
;  8     0008  1 !*****************************************************************************
;  9     0009  1 !*                                                                           *
; 10     0010  1 !*  COPYRIGHT (c) 1978, 1980, 1982, 1984 BY                                  *
; 11     0011  1 !*  DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.                   *
; 12     0012  1 !*  ALL RIGHTS RESERVED.                                                     *
; 13     0013  1 !*                                                                           *
; 14     0014  1 !*  THIS SOFTWARE IS FURNISHED UNDER A LICENSE AND MAY BE USED AND COPIED   *
; 15     0015  1 !*  ONLY IN  ACCORDANCE WITH  THE  TERMS  OF  SUCH  LICENSE  AND WITH THE  *
; 16     0016  1 !*  INCLUSION OF THE ABOVE COPYRIGHT NOTICE. THIS SOFTWARE OR  ANY  OTHER   *
; 17     0017  1 !*  COPIES THEREOF MAY NOT BE PROVIDED OR OTHERWISE MADE AVAILABLE TO ANY  *
; 18     0018  1 !*  OTHER PERSON.  NO TITLE TO AND OWNERSHIP OF  THE  SOFTWARE IS  HEREBY  *
; 19     0019  1 !*  TRANSFERRED.                                                             *
; 20     0020  1 !*                                                                           *
; 21     0021  1 !*  THE INFORMATION IN THIS SOFTWARE IS  SUBJECT TO CHANGE WITHOUT NOTICE  *
; 22     0022  1 !*  AND  SHOULD  NOT  BE  CONSTRUED AS  A COMMITMENT BY DIGITAL EQUIPMENT  *
; 23     0023  1 !*  CORPORATION.                                                             *
; 24     0024  1 !*                                                                           *
; 25     0025  1 !*  DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE  OR  RELIABILITY OF ITS  *
; 26     0026  1 !*  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.                  *
; 27     0027  1 !*                                                                           *
; 28     0028  1 !*                                                                           *
; 29     0029  1 !*****************************************************************************
```

```
;    31          0030  1 !++
;    32          0031  1 !
;    33          0032  1 ! Facility:     VAX-11 CONVERT
;    34          0033  1 !
;    35          0034  1 ! Abstract:     CONVERT sharable image callable routines
;    36          0035  1 !
;    37          0036  1 ! Contents:
;    38          0037  1 !               PASS_FILES
;    39          0038  1 !               PASS_OPTIONS
;    40          0039  1 !               CONVERT
;    41          0040  1 !               ADD_KEY
;    42          0041  1 !               RECLAIM
;    43          0042  1 !               RUNDOWN
;    44          0043  1 !               CONDITION_HANDLER
;    45          0044  1 !               COPY_DESC
;    46          0045  1 !
;    47          0046  1 ! Environment:
;    48          0047  1 !
;    49          0048  1 !               VAX/VMS Operating System
;    50          0049  1 !
;    51          0050  1 !--
;    52          0051  1
;    53          0052  1 !
;    54          0053  1 ! Author:       Keith B Thompson        Creation date:  August-1981
;    55          0054  1 !
;    56          0055  1 !
;    57          0056  1 ! Modified by:
;    58          0057  1 !
;    59          0058  1 !       V03-013 JWT0185         Jim Teague              2-Jul-1984
;    60          0059  1 !               Add late PUT_RECORD call to empty the STM buffer
;    61          0060  1 !               for FTN --> STM conversions.
;    62          0061  1 !
;    63          0062  1 !       V03-012 RAS0264         Ron Schaefer            8-Mar-1984
;    64          0063  1 !               Improve the condition handler so that it will not
;    65          0064  1 !               rundown everything unless there will be no return.
;    66          0065  1 !
;    67          0066  1 !       V03-011 RAS0260         Ron Schaefer            2-Mar-1984
;    68          0067  1 !               Improve performance of RAS0250 by enabling open by NAM.
;    69          0068  1 !
;    70          0069  1 !       V03-010 RAS0250         Ron Schaefer            23-Feb-1984
;    71          0070  1 !               Add call to LIB$FIND_FILE_END during cleanup.
;    72          0071  1 !               Check for null parameters before using them.
;    73          0072  1 !
;    74          0073  1 !       V03-009 RAS0211         Ron Schaefer            8-Nov-1983
;    75          0074  1 !               Make sure input file is closed in RUNDOWN.
;    76          0075  1 !
;    77          0076  1 !       V03-008 KBT0540         Keith B. Thompson       9-Jun-1983
;    78          0077  1 !               Fix some bugs
;    79          0078  1 !
;    80          0079  1 !       V03-007 KBT0441         Keith B. Thompson       30-Dec-1982
;    81          0080  1 !               Add conv$add_key routine
;    82          0081  1 !
;    83          0082  1 !       V03-006 KBT0436         Keith B. Thompson       16-Dec-1982
;    84          0083  1 !               Use str$analyze_sdesc to check descriptors
;    85          0084  1 !
;    86          0085  1 !       V03-005 KBT0397         Keith B. Thompson       3-Nov-1982
;    87          0086  1 !               Fix the check for statistics block in reclaim
```

```
;    88          0087  1 !
;    89          0088  1 !       V03-004 KBT0390         Keith B. Thompson       28-Oct-1982
;    90          0089  1 !               Add support for prolgue 3 sidrs in reclaim
;    91          0090  1 !
;    92          0091  1 !       V03-003 KBT0371         Keith B. Thompson       19-Oct-1982
;    93          0092  1 !               Copy the user strings to local storage and add flags
;    94          0093  1 !               parameter to user call interface
;    95          0094  1 !
;    96          0095  1 !       V03-002 KBT0345         Keith B. Thompson       4-Oct-1982
;    97          0096  1 !               Use new definitions of the linkages
;    98          0097  1 !
;    99          0098  1 !       V03-001 KBT0021         Keith Thompson          23-Mar-1982
;   100          0099  1 !               Set defered write on output file
;   101          0100  1 !
;   102          0101  1 !****
```

```
;  104          0102  1
;  105          0103  1 PSECT
;  106          0104  1         OWN     = _CONV$OWN     (PIC),
;  107          0105  1         GLOBAL  = _CONV$GLOBAL  (PIC),
;  108          0106  1         PLIT    = _CONV$PLIT    (SHARE,PIC),
;  109          0107  1         CODE    = _CONV$CODE    (SHARE,PIC);
;  110          0108  1
;  111          0109  1 LIBRARY 'SYS$LIBRARY:LIB.L32';
;  112          0110  1 LIBRARY 'SRC$:CONVERT';
;  113          0111  1
;  114          0112  1 DEFINE_ERROR_CODES;
;  115          0113  1
;  116          0114  1 LINKAGE
;  117          0115  1         L$ANALYZE_SDESC_R1      = JSB ( REGISTER = 0 ) : GLOBAL ( ADDRESS = 1 ),
;  118          0116  1         CL$COPY_DESC            = JSB ( REGISTER = 0 );
;  119          0117  1
;  120          0118  1 EXTERNAL ROUTINE
;  121          0119  1         LIB$ESTABLISH           : ADDRESSING_MODE ( GENERAL ),
;  122          0120  1         LIB$FIND_FILE_END       : ADDRESSING_MODE ( GENERAL ),
;  123          0121  1         LIB$SIG_TO_RET          : ADDRESSING_MODE ( GENERAL ),
;  124          0122  1         STR$ANALYZE_SDESC_R1    : L$ANALYZE_SDESC_R1 ADDRESSING_MODE ( GENERAL ),
;  125          0123  1         CONV$$CREATE_BUFFER,
;  126          0124  1         CONV$$CONVERT,
;  127          0125  1         CONV$$END_OF_FILE,
;  128          0126  1         CONV$$FREE_VM           : CL$FREE_VM    NOVALUE,
;  129          0127  1         CONV$$FREE_TEMP_VM      : CL$FREE_TEMP_VM       NOVALUE,
;  130          0128  1         CONV$$GET_NEXT_REY      : CL$JSB_REG_9,
;  131          0129  1         CONV$$GET_VM            : CL$GET_VM,
;  132          0130  1         CONV$$OPEN_INPUT,
;  133          0131  1         CONV$$OPEN_OUTPUT,
;  134          0132  1         CONV$$PARSE_DEF,
;  135          0133  1         CONV$$RMS_OPEN_ERROR    : NOVALUE,
;  136          0134  1         CONV$$SET_KEY_DESC      : CL$JSB_REG_9,
;  137          0135  1         ADD$$CHECK_KEY          : AL$CHECK_KEY,
;  138          0136  1         ADD$$LOAD_REY           : AL$LOAD_REY,
;  139          0137  1         ADD$$OPEN_OUTPUT,
;  140          0138  1         RECL$$OPEN_FILE,
;  141          0139  1         RECL$$ALLOCATE_BUFFERS  : RL$JSB_REG_9,
;  142          0140  1         RECL$$SCAN_DATA_LEVEL   : RL$JSB_REG_9,
;  143          0141  1         CONV$$PUT_RECORD        : ADDRESSING_MODE (GENERAL);
;  144          0142  1
;  145          0143  1 FORWARD ROUTINE
;  146          0144  1         RUNDOWN                 : NOVALUE,
;  147          0145  1         CONDITION_HANDLER,
;  148          0146  1         COPY_DESC               : CL$COPY_DESC;
;  149          0147  1
;  150          0148  1 EXTERNAL
;  151          0149  1         CONV$AB_FLAGS           : BLOCK [ ,BYTE ],
;  152          0150  1         CONV$GB_CURRENT_FILE    : BYTE,
;  153          0151  1         CONV$GL_FINDFILE_CTX    : LONG,
;  154          0152  1
;  155          0153  1         CONV$AL_IN_FILE_NAM     : VECTOR [ ,LONG ],
;  156          0154  1         CONV$AR_OUT_FILE_NAM    : REF DESC_BLK,
;  157          0155  1         CONV$AR_FDL_FILE_NAM    : REF DESC_BLK,
;  158          0156  1         CONV$AB_EXC_RAB         : $RAB_DECL,
;  159          0157  1         CONV$AB_IN_XABSUM       : $XABSUM_DECL,
;  160          0158  1         CONV$AB_IN_XABFHC       : $XABFHC_DECL,
```

```
;  161     0159  1          CONV$AB_IN_NAM          : $NAM_DECL,
;  162     0160  1          CONV$AB_IN_FAB          : $FAB_DECL,
;  163     0161  1          CONV$AB_IN_RAB          : $RAB_DECL,
;  164     0162  1          CONV$AB_OUT_XABSUM      : $XABSUM_DECL,
;  165     0163  1          CONV$AB_OUT_NAM         : $NAM_DECL,
;  166     0164  1          CONV$AB_OUT_FAB         : $FAB_DECL,
;  167     0165  1          CONV$AB_OUT_RAB         : $RAB_DECL,
;  168     0166  1          CONV$AB_RFA_FAB         : $FAB_DECL,
;  169     0167  1          CONV$AB_RFA_RAB         : $RAB_DECL,
;  170     0168  1
;  171     0169  1          CONV$GL_ADD_DELE_KEY    : LONG,
;  172     0170  1          CONV$GL_STM_BUF,
;  173     0171  1          CONV$GL_STM_REC_LEN,
;  174     0172  1          CONV$GW_OUT_REC_SIZ     : SIGNED WORD;
;  175     0173  1
;  176     0174  1  LITERAL
;  177     0175  1          COUNTERS = 4,           ! Number of counters
;  178     0176  1          OPTIONS  = 19;          ! Number of options
;  179     0177  1
;  180     0178  1  OWN
;  181     0179  1          ! Exception fab for opens and closes
;  182     0180  1          !
;  183     0181  1          EXC_FAB         : $FAB_DECL,
;  184     0182  1
;  185     0183  1          ! Call sequence counter
;  186     0184  1          !
;  187     0185  1          SEQUENCE        : BYTE INITIAL( 0 ),
;  188     0186  1
;  189     0187  1          ! The Option Flags:
;  190     0188  1          !
;  191     0189  1          OPTION_BLOCK    : VECTOR [ OPTIONS + 1,LONG ],  ! All of the options
;  192     0190  1                                                          ! plus one for the size
;  193     0191  1
;  194     0192  1          ! The counters
;  195     0193  1          !
;  196     0194  1          COUNT_BLOCK     : VECTOR [ COUNTERS + 1,LONG ]; ! All of the counters
;  197     0195  1
;  198     0196  1  BIND
;  199     0197  1          OPTION_COUNT    = OPTION_BLOCK [ 0 ] : LONG,    ! Option count
;  200     0198  1          COUNT_COUNT     = COUNT_BLOCK  [ 0 ] : LONG;    ! Counters count
;  201     0199  1
;  202     0200  1  GLOBAL BIND
;  203     0201  1
;  204     0202  1          ! The order of these options define the option block for the call
;  205     0203  1          ! interface. DO NOT change them.
;  206     0204  1          !
;  207     0205  1          CONV$GL_CREATE  = OPTION_BLOCK [  1 ] : LONG,   ! CREATE
;  208     0206  1          CONV$GL_SHARE   = OPTION_BLOCK [  2 ] : LONG,   ! SHARE
;  209     0207  1          CONV$GL_FAST    = OPTION_BLOCK [  3 ] : LONG,   ! FAST
;  210     0208  1          CONV$GL_MERGE   = OPTION_BLOCK [  4 ] : LONG,   ! MERGE
;  211     0209  1          CONV$GL_APPEND  = OPTION_BLOCK [  5 ] : LONG,   ! APPEND
;  212     0210  1          CONV$GL_SORT    = OPTION_BLOCK [  6 ] : LONG,   ! SORT
;  213     0211  1          CONV$GL_WORK_F  = OPTION_BLOCK [  7 ] : LONG,   ! WORK_FILES
;  214     0212  1          CONV$GL_KEY     = OPTION_BLOCK [  8 ] : LONG,   ! KEY
;  215     0213  1          CONV$GL_PAD     = OPTION_BLOCK [  9 ] : LONG,   ! PAD_RECORDS
;  216     0214  1          CONV$GL_PAD_CHAR= OPTION_BLOCK [ 10 ] : LONG,   ! Pad character
;  217     0215  1          CONV$GL_TRUNCATE= OPTION_BLOCK [ 11 ] : LONG,   ! TRUNCATE
```

```
;  218     0216  1          CONV$GL_EXIT     = OPTION_BLOCK [ 12 ] : LONG,    ! EXIT
;  219     0217  1          CONV$GL_FIX      = OPTION_BLOCK [ 13 ] : LONG,    ! FIXED WRITE
;  220     0218  1          CONV$GL_FILL     = OPTION_BLOCK [ 14 ] : LONG,    ! FILL_BUCKETS
;  221     0219  1          CONV$GL_READ_C   = OPTION_BLOCK [ 15 ] : LONG,    ! READ_CHECK
;  222     0220  1          CONV$GL_WRITE_C  = OPTION_BLOCK [ 16 ] : LONG,    ! WRITE_CHECK
;  223     0221  1          CONV$GL_FDL      = OPTION_BLOCK [ 17 ] : LONG,    ! FDL
;  224     0222  1          CONV$GL_EXC      = OPTION_BLOCK [ 18 ] : LONG,    ! EXCEPTION
;  225     0223  1          CONV$GL_PROLOG   = OPTION_BLOCK [ 19 ] : LONG,    ! PROLOGUE
;  226     0224  1
;  227     0225  1          ! These are the counters
;  228     0226  1          !
;  229     0227  1          CONV$GL_FILE_COUNT       = COUNT_BLOCK [ 1 ] : LONG,     ! Number of files processed
;  230     0228  1          CONV$GL_RECORD_COUNT     = COUNT_BLOCK [ 2 ] : LONG,     ! Number of Rec. Processed
;  231     0229  1          CONV$GL_EXCEPT_COUNT     = COUNT_BLOCK [ 3 ] : LONG,     ! Number of Exception Records
;  232     0230  1          CONV$GL_VALID_COUNT      = COUNT_BLOCK [ 4 ] : LONG;     ! Number of Valid Records
;  233     0231  1
;  234     0232  1 !        Data etc. for reclaim
;  235     0233  1 !
;  236     0234  1 OWN
;  237     0235  1          STATISTICS_BLOCK         : VECTOR [ 5,LONG ];
;  238     0236  1
;  239     0237  1 GLOBAL BIND
;  240     0238  1          RECL$GL_BUCKET_COUNT     = STATISTICS_BLOCK [ 1 ] : LONG,
;  241     0239  1          RECL$GL_DATA_COUNT       = STATISTICS_BLOCK [ 2 ] : LONG,
;  242     0240  1          RECL$GL_INDEX_COUNT      = STATISTICS_BLOCK [ 3 ] : LONG;
;  243     0241  1
```

```
;   245          0242  1 %SBTTL  'PASS_FILES'
;   246          0243  1 GLOBAL ROUTINE  CONV$PASS_FILES =
;   247          0244  1 !++
;   248          0245  1 !
;   249          0246  1 ! Functional Description:
;   250          0247  1 !
;   251          0248  1 !       File name passing routine
;   252          0249  1 !
;   253          0250  1 ! Calling Sequence:
;   254          0251  1 !
;   255          0252  1 !   Initial Call:
;   256          0253  1 !
;   257          0254  1 !       CONV$PASS_FILES( in_file_desc,
;   258          0255  1 !                        out_file_desc
;   259          0256  1 !                        [,fdl_file_desc]
;   260          0257  1 !                        [,exc_file_desc]
;   261          0258  1 !                        [,flags] )
;   262          0259  1 !
;   263          0260  1 !   Additional Calls:
;   264          0261  1 !
;   265          0262  1 !       CONV$PASS_FILES( in_file_desc[,flags] )
;   266          0263  1 !
;   267          0264  1 ! Input Parameters:
;   268          0265  1 !
;   269          0266  1 !       in_file_desc    - Address of a file descriptor used as the input file name
;   270          0267  1 !       out_file_desc   - Address of a file descriptor used as the output file name
;   271          0268  1 !       fdl_file_desc   - ( Optional ) Address of a string descriptor to be used
;   272          0269  1 !                                      as the file name of the fdl file
;   273          0270  1 !       exc_file_desc   - ( Optional ) Address of a string descriptor to be used
;   274          0271  1 !                                      as the file name of the exceptions file
;   275          0272  1 !       flags           - ( Optional ) Flags longword
;   276          0273  1 !
;   277          0274  1 ! Implicit Inputs:
;   278          0275  1 !       none
;   279          0276  1 !
;   280          0277  1 ! Output Parameters:
;   281          0278  1 !       none
;   282          0279  1 !
;   283          0280  1 ! Implicit Outputs:
;   284          0281  1 !       none
;   285          0282  1 !
;   286          0283  1 ! Routine Value:
;   287          0284  1 !
;   288          0285  1 !       SS$_NORMAL or
;   289          0286  1 !       CONV$_ORDER
;   290          0287  1 !       CONV$_NARG
;   291          0288  1 !       CONV$_INP_FILES
;   292          0289  1 !
;   293          0290  1 ! Routines Called:
;   294          0291  1 !       none
;   295          0292  1 !
;   296          0293  1 ! Side Effects:
;   297          0294  1 !       none
;   298          0295  1 !
;   299          0296  1 !--
;   300          0297  1
;   301          0298  2     BEGIN
```

```
	BUILTIN
	    ACTUALCOUNT,
	    ACTUALPARAMETER,
	    NULLPARAMETER;

	! Set up the condition handler to make sure files are closed and memory
	! released
	!
	LIB$ESTABLISH( CONDITION_HANDLER );

	! See what kind of call it is
	!
	IF .SEQUENCE EQLU 0
	THEN
	    BEGIN

	    LOCAL
		BYTES,
		VM_POINTER;

	    ! The first call needs at least two arguments and no more then 5
	    !
	    IF ( ACTUALCOUNT() LSSU 2 ) OR ( ACTUALCOUNT() GTRU 5 )
	    THEN
		RETURN CONV$_NARG;

	    ! Clear the flags
	    !
	    CONV$AB_FLAGS = _CLEAR;

	    ! If the user specified a flags parameter stuff it
	    !
	    IF ACTUALCOUNT() EQLU 5
	    THEN
		CONV$AB_FLAGS [ CONV$W_USER ] = .ACTUALPARAMETER(5);

	    ! Allocate memory for all of the name block buffers
	    !
	    BYTES = 2 * ( ESA_BUF_SIZ + RSA_BUF_SIZ );

	    VM_POINTER = CONV$$GET_VM ( .BYTES );

	    ! Init the input RMS blocks
	    !
	    ! The FAB
	    !
	    $FAB_INIT ( FAB = CONV$AB_IN_FAB,
			FAC = <BRO,GET>,
			FOP = <NAM,SQO>,
			NAM = CONV$AB_IN_NAM,
			XAB = CONV$AB_IN_XABSUM );

	    ! The RAB
	    !
	    $RAB_INIT ( RAB = CONV$AB_IN_RAB,
			FAB = CONV$AB_IN_FAB,
```

```
;   359          0356  3                        ROP = RAH );
;   360          0357  3
;   361          0358  3                ! The name block
;   362          0359  3                !
;   363        P 0360  3                $NAM_INIT ( NAM = CONV$AB_IN_NAM,
;   364        P 0361  3                            ESA = .VM_POINTER,
;   365        P 0362  3                            ESS = ESA_BUF_SIZ,
;   366        P 0363  3                            RSA = .VM_POINTER + ESA_BUF_SIZ,
;   367          0364  3                            RSS = RSA_BUF_SIZ );
;   368          0365  3
;   369          0366  3                ! The xabs
;   370          0367  3                !
;   371        P 0368  3                $XABSUM_INIT ( XAB = CONV$AB_IN_XABSUM,
;   372          0369  3                               NXT = CONV$AB_IN_XABFHC );
;   373        P 0370  3                $XABFHC_INIT ( XAB = CONV$AB_IN_XABFHC,
;   374          0371  3                               NXT = 0 );
;   375          0372  3
;   376          0373  3                ! Get the next block of memory
;   377          0374  3                !
;   378          0375  3                VM_POINTER = .VM_POINTER + ( ESA_BUF_SIZ + RSA_BUF_SIZ );
;   379          0376  3
;   380          0377  3                ! Init the output RMS blocks
;   381          0378  3                !
;   382          0379  3                ! The FAB
;   383          0380  3                !
;   384        P 0381  3                $FAB_INIT ( FAB = CONV$AB_OUT_FAB,
;   385        P 0382  3                            FAC = <BRO,GET,PUT>,
;   386        P 0383  3                            FOP = <DFW,NAM,OFP,SQO>,
;   387        P 0384  3                            NAM = CONV$AB_OUT_NAM,
;   388          0385  3                            XAB = CONV$AB_OUT_XABSUM );
;   389          0386  3
;   390          0387  3                ! The RAB
;   391          0388  3                !
;   392        P 0389  3                $RAB_INIT ( RAB = CONV$AB_OUT_RAB,
;   393        P 0390  3                            FAB = CONV$AB_OUT_FAB,
;   394          0391  3                            ROP = WBH );
;   395          0392  3
;   396          0393  3                ! The name block
;   397          0394  3                !
;   398        P 0395  3                $NAM_INIT ( NAM = CONV$AB_OUT_NAM,
;   399        P 0396  3                            ESA = .VM_POINTER,
;   400        P 0397  3                            ESS = ESA_BUF_SIZ,
;   401        P 0398  3                            RLF = CONV$AB_IN_NAM,
;   402        P 0399  3                            RSA = .VM_POINTER + ESA_BUF_SIZ,
;   403          0400  3                            RSS = RSA_BUF_SIZ );
;   404          0401  3
;   405          0402  3                ! The xab
;   406          0403  3                !
;   407        P 0404  3                $XABSUM_INIT ( XAB = CONV$AB_OUT_XABSUM,
;   408          0405  3                               NXT = 0 );
;   409          0406  3
;   410          0407  3                ! Clear the count of input files
;   411          0408  3                !
;   412          0409  3                CONV$GL_FILE_COUNT = 0;
;   413          0410  3
;   414          0411  3                ! The second argument is the output file name
;   415          0412  3                !
```

```
;  416          0413  3          IF NULLPARAMETER(2)
;  417          0414  3          THEN
;  418          0415  3              RETURN CONV$_ILL_VALUE
;  419          0416  3          ELSE
;  420          0417  3              CONV$AR_OUT_FILE_NAM = COPY_DESC( ACTUALPARAMETER( 2 ) );
;  421          0418  3
;  422          0419  3          ! If there is a 3rd argument then it's the fdl file descriptor
;  423          0420  3          !
;  424          0421  3          IF NOT NULLPARAMETER(3)
;  425          0422  3          THEN
;  426          0423  3
;  427          0424  3              ! Copy the descriptor
;  428          0425  3              !
;  429          0426  3              CONV$AR_FDL_FILE_NAM = COPY_DESC( ACTUALPARAMETER( 3 ) );
;  430          0427  3
;  431          0428  3
;  432          0429  3          ! If there is a 4th argument then it's the exception file descriptor
;  433          0430  3          !
;  434          0431  3          IF NOT NULLPARAMETER(4)
;  435          0432  3          THEN
;  436          0433  4              BEGIN
;  437          0434  4
;  438          0435  4              LOCAL
;  439          0436  4                  EXC_NAM_PTR,
;  440          0437  4                  EXC_FILE_NAM    : REF DESC_BLK;
;  441          0438  4
;  442          0439  4              EXC_FILE_NAM = COPY_DESC( ACTUALPARAMETER( 4 ) );
;  443          0440  4
;  444          0441  4              ! Allocate memory for name block and buffers
;  445          0442  4              !
;  446          0443  4              EXC_NAM_PTR = CONV$$GET_VM( NAM$K_BLN + ESA_BUF_SIZ + RSA_BUF_SIZ );
;  447          0444  4
;  448          0445  4              ! Init the RMS blocks
;  449          0446  4              !
;  450          0447  4              ! The FAB
;  451          0448  4              !
;  452        P 0449  4              $FAB_INIT ( FAB = EXC_FAB,
;  453        P 0450  4                          DNM = '.EXC'
;  454        P 0451  4                          FNS = .EXC_FILE_NAM [ DSC$W_LENGTH ],
;  455        P 0452  4                          FNA = .EXC_FILE_NAM [ DSC$A_POINTER ],
;  456        P 0453  4                          FOP = <NAM,SQO,TEF>,
;  457        P 0454  4                          NAM = .EXC_NAM_PTR,
;  458        P 0455  4                          RFM = VAR,
;  459          0456  4                          RAT = CR );
;  460          0457  4
;  461          0458  4              ! The RAB
;  462          0459  4              !
;  463        P 0460  4              $RAB_INIT ( RAB = CONV$AB_EXC_RAB,
;  464        P 0461  4                          FAB = EXC_FAB,
;  465          0462  4                          ROP = WBH );
;  466          0463  4
;  467          0464  4              ! The name block
;  468          0465  4              !
;  469        P 0466  4              $NAM_INIT ( NAM = .EXC_NAM_PTR,
;  470        P 0467  4                          ESA = .EXC_NAM_PTR + NAM$K_BLN,
;  471        P 0468  4                          ESS = ESA_BUF_SIZ,
;  472        P 0469  4                          RSA = .EXC_NAM_PTR + NAM$K_BLN + ESA_BUF_SIZ,
```

```
5                            RSS = RSA_BUF_SIZ )
5
3                   END;
3
3               ! We are a success so set up for the next call
3               !
3               SEQUENCE = 1
3
3               END
3
3           ! If not the first call it better be the second call to pass files
3           !
2           ELSE IF .SEQUENCE EQLU 1
3           THEN
3               BEGIN
3
3               ! More calls to pass_files means only one or two arguments
3               !
3               IF ACTUALCOUNT() NEQU 1
3               THEN
3
3                   IF ACTUALCOUNT() EQLU 2
3                   THEN
3                       CONV$AB_FLAGS [ CONV$W_USER ] = .ACTUALPARAMETER(2)
3                   ELSE
3                       RETURN CONV$_NARG
3
3               END
3
3           ! If we are here we were called in the wrong order
3           !
2           ELSE
2               RETURN CONV$_ORDER;
2
2           ! If there are to many input files exit
2           !
2           IF .CONV$GL_FILE_COUNT GTR 9
2           THEN
2               RETURN CONV$_INP_FILES;
2
2           ! The first argument is always the input file
2           !
2           IF NULLPARAMETER(1)
2           THEN
2               RETURN CONV$_ILL_VALUE
2           ELSE
2               CONV$AL_IN_FILE_NAM [ .CONV$GL_FILE_COUNT ] =
2                       COPY_DESC( ACTUALPARAMETER(1) );
2
2           CONV$GL_FILE_COUNT = .CONV$GL_FILE_COUNT + 1;
2
2           RETURN SS$_NORMAL
2
1           END;

                                                    .TITLE  CONV$CALL VAX-11 CONVERT
```

```
                                        .IDENT  \V04-000\

                                        .PSECT  _CONV$PLIT,NOWRT,NOEXE,  SHR,  PIC,2

43  58  45  2E  00000 P.AAA:            .ASCII  \.EXC\                                  ;

                                        .PSECT  _CONV$OWN,NOEXE,  PIC,2

                    00000 EXC_FAB:      .BLKB   80
                 00 00050 SEQUENCE:
                                        .BYTE   0                                       ;
                    00051               .BLKB   3
                    00054 OPTION_BLOCK:
                                        .BLKB   80
                    000A4 COUNT_BLOCK:
                                        .BLKB   20
                    00088 STATISTICS_BLOCK:
                                        .BLKB   20

                          OPTION_COUNT=         OPTION_BLOCK
                          COUNT_COUNT=          COUNT_BLOCK
                          CONV$GL_CREATE==      OPTION_BLOCK+4
                          CONV$GL_SHARE==       OPTION_BLOCK+8
                          CONV$GL_FAST==        OPTION_BLOCK+12
                          CONV$GL_MERGE==       OPTION_BLOCK+16
                          CONV$GL_APPEND==      OPTION_BLOCK+20
                          CONV$GL_SORT==        OPTION_BLOCK+24
                          CONV$GL_WORK_F==      OPTION_BLOCK+28
                          CONV$GL_KEY==         OPTION_BLOCK+32
                          CONV$GL_PAD==         OPTION_BLOCK+36
                          CONV$GL_PAD_CHAR==    OPTION_BLOCK+40
                          CONV$GL_TRUNCATE==    OPTION_BLOCK+44
                          CONV$GL_EXIT==        OPTION_BLOCK+48
                          CONV$GL_FIX==         OPTION_BLOCK+52
                          CONV$GL_FILL==        OPTION_BLOCK+56
                          CONV$GL_READ_C==      OPTION_BLOCK+60
                          CONV$GL_WRITE_C==     OPTION_BLOCK+64
                          CONV$GL_FDL==         OPTION_BLOCK+68
                          CONV$GL_EXC==         OPTION_BLOCK+72
                          CONV$GL_PROLOG==      OPTION_BLOCK+76
                          CONV$GL_FILE_COUNT==COUNT_BLOCK+4
                          CONV$GL_RECORD_COUNT==
                                                COUNT_BLOCK+8
                          CONV$GL_EXCEPT_COUNT==
                                                COUNT_BLOCK+12
                          CONV$GL_VALID_COUNT==
                                                COUNT_BLOCK+16
                          RECL$GL_BUCKET_COUNT==
                                                STATISTICS_BLOCK+4
                          RECL$GL_DATA_COUNT==STATISTICS_BLOCK+8
                          RECL$GL_INDEX_COUNT==
                                                STATISTICS_BLOCK+12
                          $RMS_PTR=             EXC_FAB
                                  .EXTRN  CONVERT$_FACILITY
                                  .EXTRN  CONV$_FAO_MAX, CONV$_BADBLK
                                  .EXTRN  CONV$_BADLOGIC, CONV$_BADSORT
                                  .EXTRN  CONV$_CONFQUAL, CONV$_CREATEDSTM
```

```
.EXTRN  CONV$_CREA_ERR, CONV$_DELPRI
.EXTRN  CONV$_DUP, CONV$_EXTN_ERR
.EXTRN  CONV$_FATALEXC, CONV$_FILLIM
.EXTRN  CONV$_IDX_LIM, CONV$_ILL_KEY
.EXTRN  CONV$_ILL_VALUE
.EXTRN  CONV$_INP_FILES
.EXTRN  CONV$_INSVIRMEM
.EXTRN  CONV$_INVBKT, CONV$_KEY
.EXTRN  CONV$_KEYREF, CONV$_LOADIDX
.EXTRN  CONV$_NARG, CONV$_NI
.EXTRN  CONV$_NOKEY, CONV$_NOTIDX
.EXTRN  CONV$_NOTSEQ, CONV$_NOWILD
.EXTRN  CONV$_ORDER, CONV$_OPENEXC
.EXTRN  CONV$_OPENIN, CONV$_OPENOUT
.EXTRN  CONV$_PAD, CONV$_PLV
.EXTRN  CONV$_PROERR, CONV$_PROL_WRT
.EXTRN  CONV$_READERR, CONV$_RSK
.EXTRN  CONV$_RSZ, CONV$_RTL
.EXTRN  CONV$_RTS, CONV$_SEQ
.EXTRN  CONV$_UDF_BKS, CONV$_UDF_BLK
.EXTRN  CONV$_VFC, CONV$_WRITEERR
.EXTRN  LIB$ESTABLISH, LIB$FIND_FILE_END
.EXTRN  LIB$SIG_TO_RET, STR$ANALYZE_SDESC_R1
.EXTRN  CONV$$CREATE_BUFFER
.EXTRN  CONV$$CONVERT, CONV$$END_OF_FILE
.EXTRN  CONV$$FREE_VM, CONV$$FREE_TEMP_VM
.EXTRN  CONV$$GET_NEXT_KEY
.EXTRN  CONV$$GET_VM, CONV$$OPEN_INPUT
.EXTRN  CONV$$OPEN_OUTPUT
.EXTRN  CONV$$PARSE_DEF
.EXTRN  CONV$$RMS_OPEN_ERROR
.EXTRN  CONV$$SET_KEY_DESC
.EXTRN  ADD$$CHECK_KEY, ADD$$LOAD_KEY
.EXTRN  ADD$$OPEN_OUTPUT
.EXTRN  RECL$$OPEN_FILE
.EXTRN  RECL$$ALLOCATE_BUFFERS
.EXTRN  RECL$$SCAN_DATA_LEVEL
.EXTRN  CONV$$PUT_RECORD
.EXTRN  CONV$AB_FLAGS, CONV$GB_CURRENT_FILE
.EXTRN  CONV$GL_FINDFILE_CTX
.EXTRN  CONV$AL_IN_FILE_NAM
.EXTRN  CONV$AR_OUT_FILE_NAM
.EXTRN  CONV$AR_FDL_FILE_NAM
.EXTRN  CONV$AB_EXC_RAB
.EXTRN  CONV$AB_IN_XABSUM
.EXTRN  CONV$AB_IN_XABFHC
.EXTRN  CONV$AB_IN_NAM, CONV$AB_IN_FAB
.EXTRN  CONV$AB_IN_RAB, CONV$AB_OUT_XABSUM
.EXTRN  CONV$AB_OUT_NAM
.EXTRN  CONV$AB_OUT_FAB
.EXTRN  CONV$AB_OUT_RAB
.EXTRN  CONV$AB_RFA_FAB
.EXTRN  CONV$AB_RFA_RAB
.EXTRN  CONV$GL_ADD_DELE_KEY
.EXTRN  CONV$GL_STM_BUF
.EXTRN  CONV$GL_STR_REC_LEN
.EXTRN  CONV$GW_OUT_REC_SIZ
```

```
                                                        .PSECT  _CONV$CODE,NOWRT,  SHR,  PIC,2

                                        OFFC 00000      .ENTRY  CONV$PASS_FILES, Save R2,R3,R4,R5,R6,R7,R8,-; 0243
                                                                R9,R10,R11
                                5B      0000G   CF  9E 00002  MOVAB   $RMS_PTR, R11
                                5A      0000G   CF  9E 00007  MOVAB   CONV$AB_IN_NAM, R10
                                59      0000G   CF  9E 0000C  MOVAB   $RMS_PTR, R9
                                58      0000'   CF  9E 00011  MOVAB   CONV$GL_FILE_COUNT, R8
                                        0000V   CF  9F 00016  PUSHAB  CONDITION_HANDLER                       0308
                    00000000G   00          01  FB 0001A  CALLS   #1, LIB$ESTABLISH
                                50      A8      A8  9A 00021  MOVZBL  SEQUENCE, R0                           0312
                                                03  13 00025  BEQL    1$
                                            0218    31 00027  BRW     11$
                                02              6C  91 0002A  1$:     CMPB    (AP), #2                      0322
                                                03  1E 0002D  BGEQU   3$
                                            0227    31 0002F  2$:     BRW     12$
                                05              6C  91 00032  3$:     CMPB    (AP), #5
                                                F8  1A 00035  BGTRU   2$
                                        0000G   CF  D4 00037  CLRL    CONV$AB_FLAGS                         0328
                                05              6C  91 0003B  CMPB    (AP), #5                              0332
                                                06  12 0003E  BNEQ    4$
                            0000G   CF      14      BC  B0 00040  MOVW    @20(AP), CONV$AB_FLAGS                0334
                                50      0140    8F  3C 00046  4$:     MOVZWL  #320, BYTES                   0338
                                                50  DD 0004B  PUSHL   BYTES                                 0340
                                            0000G   30 0004D  BSBW    CONV$$GET_VM
                                5E              04  C0 00050  ADDL2   #4, SP
                                56              50  D0 00053  MOVL    R0, VM_POINTER
    0050    8F          00      6E              00  2C 00056  MOVC5   #0, (SP), #0, #80, $RMS_PTR           0350
                                                69      0005D
                                69      5003    8F  B0 0005E  MOVW    #20483, $RMS_PTR
                            04  A9  01000040      8F  D0 00063  MOVL    #16777280, $RMS_PTR+4
                            16  A9          42      8F  90 00068  MOVB    #66, $RMS_PTR+22
                            1F  A9              02  90 00070  MOVB    #2, $RMS_PTR+31
                            24  A9      0000G   CF  9E 00074  MOVAB   CONV$AB_IN_XABSUM, $RMS_PTR+36
                            28  A9              6A  9E 0007A  MOVAB   CONV$AB_IN_NAM, $RMS_PTR+40
    0044    8F          00      6E              00  2C 0007E  MOVC5   #0, (SP), #0, #68, $RMS_PTR           0356
                                        0000G   CF      00085
                        0000G   CF      4401    8F  B0 00088  MOVW    #17409, $RMS_PTR
                        0000G   CF      0200    8F  3C 0008F  MOVZWL  #512, $RMS_PTR+4
                        0000G   CF              69  9E 00096  MOVAB   CONV$AB_IN_FAB, $RMS_PTR+60
    0060    8F          00      6E              00  2C 0009B  MOVC5   #0, (SP), #0, #96, $RMS_PTR           0364
                                                6A      000A2
                                6A      6002    8F  B0 000A3  MOVW    #24578, $RMS_PTR
                            02  AA          50      8F  90 000A8  MOVB    #80, $RMS_PTR+2
                            04  AA          50      A6  9E 000AD  MOVAB   80(R6), $RMS_PTR+4
                            0A  AA          50      8F  90 000B2  MOVB    #80, $RMS_PTR+10
                            0C  AA              56  D0 000B7  MOVL    VM_POINTER, $RMS_PTR+12
                        0C          00      6E      00  2C 000BB  MOVC5   #0, (SP), #0, #12, $RMS_PTR         0369
                                        0000G   CF      000C0
                        0000G   CF      0C16    8F  B0 000C3  MOVW    #3094, $RMS_PTR
                        0000G   CF      0000G   CF  9E 000CA  MOVAB   CONV$AB_IN_XABFHC, $RMS_PTR+4
                        2C          00      6E      00  2C 000D1  MOVC5   #0, (SP), #0, #44, $RMS_PTR         0371
                                        0000G   CF      000D6
                        0000G   CF      2C1D    8F  B0 000D9  MOVW    #11293, $RMS_PTR
                                56      00A0    C6  9E 000E0  MOVAB   160(R6), VM_POINTER                   0375
    0050    8F          00      6E              00  2C 000E5  MOVC5   #0, (SP), #0, #80, $RMS_PTR           0385
```

```
                                        6B       000EC
                          6B     5003   8F   B0  000ED        MOVW    #20483, $RMS_PTR                          ;
                     04   AB 21000060   8F   D0  000F2        MOVL    #553648224, $RMS_PTR+4                    ;
                     16   AB       43   8F   90  000FA        MOVB    #67, $RMS_PTR+22                          ;
                     1F   AB            02   90  000FF        MOVB    #2, $RMS_PTR+31                           ;
                     24   AB    0000G   CF   9E  00103        MOVAB   CONV$AB_OUT_XABSUM, $RMS_PTR+36           ;
                     28   AB    0000G   CF   9E  00109        MOVAB   CONV$AB_OUT_NAM, $RMS_PTR+40              ;
 0044   8F          00            6E    00   2C  0010F        MOVC5   #0, (SP), #0, #68, $RMS_PTR               ; 0391
                                0000G   CF       00116
                  0000G   CF     4401   8F   B0  00119        MOVW    #17409, $RMS_PTR                          ;
                  0000G   CF     0400   8F   3C  00120        MOVZWL  #1024, $RMS_PTR+4                         ;
                  0000G   CF            6B   9E  00127        MOVAB   CONV$AB_OUT_FAB, $RMS_PTR+60              ;
 0060   8F          00            6E    00   2C  0012C        MOVC5   #0, (SP), #0, #96, $RMS_PTR               ; 0400
                                0000G   CF       00133
                  0000G   CF     6002   8F   B0  00136        MOVW    #24578, $RMS_PTR                          ;
                  0000G   CF       50   8F   90  0013D        MOVB    #80, $RMS_PTR+2                           ;
                  0000G   CF       50   A6   9E  00143        MOVAB   80(R6), $RMS_PTR+4                        ;
                  0000G   CF       50   8F   90  00149        MOVB    #80, $RMS_PTR+10                          ;
                  0000G   CF            56   D0  0014F        MOVL    VM_POINTER, $RMS_PTR+12                   ;
                  0000G   CF            6A   9E  00154        MOVAB   CONV$AB_IN_NAM, $RMS_PTR+16               ;
        0C          00            6E    00   2C  00159        MOVC5   #0, (SP), #0, #12, $RMS_PTR               ; 0405
                                0000G   CF       0015E
                  0000G   CF     0C16   8F   B0  00161        MOVW    #3094, $RMS_PTR                           ;
                                        68   D4  00168        CLRL    CONV$GL_FILE_COUNT                        ; 0409
                          02            6C   91  0016A        CMPB    (AP), #2                                  ; 0413
                                        03   1E  0016D        BGEQU   6$                                        ;
                                      0110   31  0016F  5$:   BRW     16$                                       ;
                                   08   AC   D5  00172  6$:   TSTL    8(AP)                                     ;
                                        F8   13  00175        BEQL    5$                                        ;
                          50       08   AC   D0  00177        MOVL    8(AP), R0                                 ; 0417
                                    0000V    30  0017B        BSBW    COPY_DESC                                 ;
                  0000G   CF            50   D0  0017E        MOVL    R0, CONV$AR_OUT_FILE_NAM                  ;
                          03            6C   91  00183        CMPB    (AP), #3                                  ; 0421
                                        11   1F  00186        BLSSU   7$                                        ;
                                   0C   AC   D5  00188        TSTL    12(AP)                                    ;
                                        0C   13  0018B        BEQL    7$                                        ;
                          50       0C   AC   D0  0018D        MOVL    12(AP), R0                                ; 0426
                                    0000V    30  00191        BSBW    COPY_DESC                                 ;
                  0000G   CF            50   D0  00194        MOVL    R0, CONV$AR_FDL_FILE_NAM                  ;
                          04            6C   91  00199  7$:   CMPB    (AP), #4                                  ; 0431
                                        03   1E  0019C        BGEQU   9$                                        ;
                                      009B   31  0019E  8$:   BRW     10$                                       ;
                                   10   AC   D5  001A1  9$:   TSTL    16(AP)                                    ;
                                        F8   13  001A4        BEQL    8$                                        ;
                          50       10   AC   D0  001A6        MOVL    16(AP), R0                                ; 0439
                                    0000V    30  001AA        BSBW    COPY_DESC                                 ;
                          57            50   D0  001AD        MOVL    R0, EXC_FILE_NAM                          ;
                          7E     0100   8F   3C  001B0        MOVZWL  #256, -(SP)                               ; 0443
                                    0000G    30  001B5        BSBW    CONV$$GET_VM                              ;
                          5E            04   C0  001B8        ADDL2   #4, SP                                    ;
                          56            50   D0  001BB        MOVL    R0, EXC_NAM_PTR                           ;
 0050   8F          00            6E    00   2C  001BE        MOVC5   #0, (SP), #0, #80, $RMS_PTR               ; 0456
                                 FF58   C8       001C5
                   FF58   C8     5003   8F   B0  001C8        MOVW    #20483, $RMS_PTR                          ;
                   FF5C   C8 11000040   8F   D0  001CF        MOVL    #285212736, $RMS_PTR+4                    ;
                   FF6E   C8            02   90  001D8        MOVB    #2, $RMS_PTR+22                           ;
                   FF76   C8     0202   8F   B0  001DD        MOVW    #514, $RMS_PTR+30                         ;
```

```
                        80   AB          56   D0 001E4          MOVL    EXC_NAM_PTR, $RMS_PTR+40
                        84   AB    04    A7   D0 001E8          MOVL    4(EXC_FILE_NAM), $RMS_PTR+44
                        88   AB  0000'   CF   9E 001ED          MOVAB   P.AAA, $RMS_PTR+48
                        8C   AB          67   90 001F3          MOVB    (EXC_FILE_NAM), $RMS_PTR+52
                        8D   AB          04   90 001F7          MOVB    #4, $RMS_PTR+53
0044  8F      00              6E          00   2C 001FB          MOVC5   #0, (SP), #0, #68, $RMS_PTR                     0462
                                    0000G CF   00202
                    0000G   CF  4401    8F   B0 00205          MOVW    #17409, $RMS_PTR
                    0000G   CF  0400    8F   3C 0020C          MOVZWL  #1024, $RMS_PTR+4
                    0000G   CF  FF58    C8   9E 00213          MOVAB   EXC_FAB, $RMS_PTR+60
0060  8F      00              6E          00   2C 0021A          MOVC5   #0, (SP), #0, #96, (EXC_NAM_PTR)                0470
                                        66   00221
                        66      6002    8F   B0 00222          MOVW    #24578, (EXC_NAM_PTR)
                        02  A6    50    8F   90 00227          MOVB    #80, 2(EXC_NAM_PTR)
                        04  A6  00B0    C6   9E 0022C          MOVAB   176(R6), 4(EXC_NAM_PTR)
                        0A  A6    50    8F   90 00232          MOVB    #80, 10(EXC_NAM_PTR)
                        0C  A6    60    A6   9E 00237          MOVAB   96(R6), 12(EXC_NAM_PTR)
                        A8  AB          01   90 0023C  10$:     MOVB    #1, SEQUENCE                                    0476
                                        27   11 00240          BRB     14$
                            01          50   91 00242  11$:     CMPB    R0, #1                                          0482
                                        1A   12 00245          BNEQ    13$
                            01          6C   91 00247          CMPB    (AP), #1                                        0488
                                        1D   13 0024A          BEQL    14$
                            02          6C   91 0024C          CMPB    (AP), #2                                        0491
                                        08   12 0024F          BNEQ    12$
                    0000G   CF      08  BC   B0 00251          MOVW    @8(AP), CONV$AB_FLAGS                           0493
                                        10   11 00257          BRB     14$
                            50 00000000G 8F  D0 00259  12$:     MOVL    #CONV$_NARG, R0                                 0495
                                        04   00260          RET
                            50 00000000G 8F  D0 00261  13$:     MOVL    #CONV$_ORDER, R0                                0502
                                        04   00268          RET
                            52          68   D0 00269  14$:     MOVL    CONV$GL_FILE_COUNT, R2                          0506
                            09          52   D1 0026C          CMPL    R2, #9
                                        08   15 0026F          BLEQ    15$
                            50 00000000G 8F  D0 00271          MOVL    #CONV$_INP_FILES, R0                            0508
                                        04   00278          RET
                                        6C   95 00279  15$:     TSTB    (AP)                                            0512
                                        05   13 0027B          BEQL    16$
                                04      AC   D5 0027D          TSTL    4(AP)
                                        08   12 00280          BNEQ    17$
                            50 00000000G 8F  D0 00282  16$:     MOVL    #CONV$_ILL_VALUE, R0                            0514
                                        04   00289          RET
                            50      04  AC   D0 0028A  17$:     MOVL    4(AP), R0                                       0517
                                    0000V   30   0028E          BSBW    COPY_DESC
                    0000GCF42           50   D0 00291          MOVL    R0, CONV$AL_IN_FILE_NAM[R2]
                                        68   D6 00297          INCL    CONV$GL_FILE_COUNT                              0519
                            50          01   D0 00299          MOVL    #1, R0                                          0521
                                        04   0029C          RET                                                     0523

; Routine Size:  669 bytes,    Routine Base:  _CONV$CODE + 0000
```

```
;   528     0524  1 %SBTTL  'PASS_OPTIONS'
;   529     0525  1 GLOBAL ROUTINE CONV$PASS_OPTIONS =
;   530     0526  1 !++
;   531     0527  1 !
;   532     0528  1 ! Functional Description:
;   533     0529  1 !
;   534     0530  1 !       Initializes the convert control/option block
;   535     0531  1 !
;   536     0532  1 ! Calling Sequence:
;   537     0533  1 !
;   538     0534  1 !       CONV$PASS_OPTIONS( [option_block][,flags] )
;   539     0535  1 !
;   540     0536  1 ! Input Parameters:
;   541     0537  1 !
;   542     0538  1 !       option_block    - ( Optional ) Address of convert option block
;   543     0539  1 !
;   544     0540  1 !           Structure of option block:
;   545     0541  1 !
;   546     0542  1 !
;   547     0543  1 !           option_block -->+-----------------------------+
;   548     0544  1 !                           |   number of options         |
;   549     0545  1 !                           +-----------------------------+
;   550     0546  1 !                           |   create                    |
;   551     0547  1 !                           +-----------------------------+
;   552     0548  1 !                           |   share                     |
;   553     0549  1 !                           +-----------------------------+
;   554     0550  1 !                           |   fast                      |
;   555     0551  1 !                           +-----------------------------+
;   556     0552  1 !                           |   merge                     |
;   557     0553  1 !                           +-----------------------------+
;   558     0554  1 !                           |   append                    |
;   559     0555  1 !                           +-----------------------------+
;   560     0556  1 !                           |   sort                      |
;   561     0557  1 !                           +-----------------------------+
;   562     0558  1 !                           |   work_files                |
;   563     0559  1 !                           +-----------------------------+
;   564     0560  1 !                           |   key                       |
;   565     0561  1 !                           +-----------------------------+
;   566     0562  1 !                           |   pad                       |
;   567     0563  1 !                           +-----------------------------+
;   568     0564  1 !                           |   pad_character             |
;   569     0565  1 !                           +-----------------------------+
;   570     0566  1 !                           |   truncate                  |
;   571     0567  1 !                           +-----------------------------+
;   572     0568  1 !                           |   exit                      |
;   573     0569  1 !                           +-----------------------------+
;   574     0570  1 !                           |   fixed_write               |
;   575     0571  1 !                           +-----------------------------+
;   576     0572  1 !                           |   fill_buckets              |
;   577     0573  1 !                           +-----------------------------+
;   578     0574  1 !                           |   read_check                |
;   579     0575  1 !                           +-----------------------------+
;   580     0576  1 !                           |   write_check               |
;   581     0577  1 !                           +-----------------------------+
;   582     0578  1 !                           |   fdl                       |
;   583     0579  1 !                           +-----------------------------+
;   584     0580  1 !                           |   exception                 |
                    !                           +-----------------------------+
```

```
!                                       |__prologue_______________|
!                                       |-------------------------|
!
!       flags           - ( Optional ) flags longword
!
! Implicit Inputs:
!       none
!
! Output Parameters:
!       none
!
! Implicit Outputs:
!       none
!
! Routine Value:
!
!       SS$NORMAL or error code
!
! Routines Called:
!
!       $OPEN
!       CONV$$RMS_OPEN_ERROR    - By RMS as an AST
!       $CONNECT
!
! Side Effects:
!
!       Opens the exception file if specified
!
!--

    BEGIN

    BUILTIN
        ACTUALCOUNT,
        ACTUALPARAMETER,
        NULLPARAMETER;

    ! Set up condition handler
    !
    LIB$ESTABLISH ( CONDITION_HANDLER );

    ! Check the order of the calls
    !
    IF .SEQUENCE NEQ 1
    THEN
        RETURN CONV$_ORDER;

    ! Check the number of arguments
    !
    IF ACTUALCOUNT() GTRU 2
    THEN
        RETURN CONV$_NARG;

    ! Were there user flags?
    !
    IF ACTUALCOUNT() EQLU 2
    THEN
```

```
;   642     0638  2          CONV$AB_FLAGS [ CONV$W_USER ] = .ACTUALPARAMETER(2);
;   643     0639  2
;   644     0640  2      ! Initialize the counter block
;   645     0641  2      !
;   646     0642  2      COUNT_COUNT = COUNTERS;
;   647     0643  2
;   648     0644  2      ! Clear the counters (don't clear 2 (file_count) since that has
;   649     0645  2      ! been set by pass_files)
;   650     0646  2      !
;   651     0647  2      INCR I FROM 2 TO COUNTERS BY 1
;   652     0648  2      DO
;   653     0649  2          COUNT_BLOCK [ .I ] = _CLEAR;
;   654     0650  2
;   655     0651  2      ! Initialize the option block
;   656     0652  2      !
;   657     0653  2      OPTION_COUNT = OPTIONS;
;   658     0654  2
;   659     0655  2      ! First clear the entire block since most of the defaults are off
;   660     0656  2      !
;   661     0657  2      INCR I FROM 1 TO OPTIONS BY 1
;   662     0658  2      DO
;   663     0659  2          OPTION_BLOCK [ .I ] = _CLEAR;
;   664     0660  2
;   665     0661  2      ! Now set the defaults
;   666     0662  2      !
;   667     0663  2      CONV$GL_CREATE      = _SET;
;   668     0664  2      CONV$GL_FAST        = _SET;
;   669     0665  2      CONV$GL_SORT        = _SET;
;   670     0666  2      CONV$GL_WORK_F      = 2;
;   671     0667  2
;   672     0668  2      ! If there was an argument then use it
;   673     0669  2      !
;   674     0670  2      IF NOT NULLPARAMETER(1)
;   675     0671  2      THEN
;   676     0672  3          BEGIN
;   677     0673  3
;   678     0674  3          LOCAL   USER_BLOCK      : REF VECTOR [ ,LONG ];
;   679     0675  3
;   680     0676  3          USER_BLOCK = ACTUALPARAMETER( 1 );
;   681     0677  3
;   682     0678  3          ! Check the size of the block
;   683     0679  3          !
;   684     0680  3          IF .USER_BLOCK [ 0 ] GTRU OPTIONS
;   685     0681  3          THEN
;   686     0682  3              RETURN CONV$_BADBLK;
;   687     0683  3
;   688     0684  3          ! If the user block specified a prologue version then set a flag to
;   689     0685  3          ! use it
;   690     0686  3          !
;   691     0687  3          IF .USER_BLOCK [ 0 ] EQLU OPTIONS
;   692     0688  3          THEN
;   693     0689  3              CONV$AB_FLAGS [ CONV$V_PROLOG ] = _SET;
;   694     0690  3
;   695     0691  3          ! Copy the option block specified by the user into ours
;   696     0692  3          !
;   697     0693  3          INCR I FROM 1 TO .USER_BLOCK [ 0 ]
;   698     0694  3          DO
```

```
;  699     0695  3              OPTION_BLOCK [ .I ] = .USER_BLOCK [ .I ]
;  700     0696  2
;  701     0697  2          END;
;  702     0698  2
;  703     0699  2      ! Check for some switch conflicts
;  704     0700  2      !
;  705     0701  2      ! /FDL/NOCREATE
;  706     0702  2      ! /FDL/MERGE
;  707     0703  2      ! /FDL/APPEND
;  708     0704  2      !
;  709     0705  2      !    or combinations of the above is wrong
;  710     0706  2      !
;  711     0707  2      IF .CONV$GL_FDL AND ( ( NOT .CONV$GL_CREATE ) OR
;  712     0708  2                            .CONV$GL_MERGE OR
;  713     0709  2                            .CONV$GL_APPEND )
;  714     0710  2      THEN
;  715     0711  2          RETURN CONV$_CONFQUAL;
;  716     0712  2
;  717     0713  2      ! /MERGE/APPEND
;  718     0714  2      !
;  719     0715  2      IF .CONV$GL_MERGE AND .CONV$GL_APPEND
;  720     0716  2      THEN
;  721     0717  2          RETURN CONV$_CONFQUAL;
;  722     0718  2
;  723     0719  2      ! Lets set the switches strait, NOTE: The order of this sets the presidence
;  724     0720  2      !                                     of the qualifiers, do not change it
;  725     0721  2      !
;  726     0722  2      ! The merge option is really /NOCREATE/NOFAST/NOSORT apppend is simmular
;  727     0723  2      !
;  728     0724  2      IF .CONV$GL_MERGE OR .CONV$GL_APPEND
;  729     0725  2      THEN
;  730     0726  3          BEGIN
;  731     0727  3          CONV$GL_CREATE  = _CLEAR;
;  732     0728  3          CONV$GL_FAST    = _CLEAR;
;  733     0729  3          CONV$GL_SORT    = _CLEAR
;  734     0730  3          END;
;  735     0731  2
;  736     0732  2      ! If we create a file without definition then the files are duplicate
;  737     0733  2      ! therefore index files will be in order (one input file only)
;  738     0734  2      !
;  739     0735  2      IF .CONV$GL_CREATE AND ( NOT .CONV$GL_FDL ) AND
;  740     0736  2                                                  ( .CONV$GL_FILE_COUNT EQLU 1 )
;  741     0737  2      THEN
;  742     0738  2          CONV$GL_SORT    = _CLEAR;
;  743     0739  2
;  744     0740  2      ! If we open the input file shared we cannot sort it
;  745     0741  2      !
;  746     0742  2      IF .CONV$GL_SHARE
;  747     0743  2      THEN
;  748     0744  2          CONV$GL_SORT    = _CLEAR;
;  749     0745  2
;  750     0746  2      ! Create exc files if neceassary
;  751     0747  2      !
;  752     0748  2      ! If the EXCEPTION Option was specified THEN Create and Connect
;  753     0749  2      ! the Exception File.
;  754     0750  2      !
;  755     0751  2      IF .CONV$GL_EXC
```

```
THEN
    BEGIN

    ! Signal an OPENEXC error on failure
    !
    EXC_FAB [ FAB$L_CTX ] = CONV$_OPENEXC;

    ! Create it
    !
    $CREATE ( FAB=EXC_FAB,ERR=CONV$$RMS_OPEN_ERROR );

    ! Say that a exception file is open
    !
    CONV$AB_FLAGS [ CONV$V_EXC ] = _SET;

    ! Connect the stream
    !
    $CONNECT ( RAB=CONV$AB_EXC_RAB,ERR=CONV$$RMS_OPEN_ERROR )

    END;

SEQUENCE = .SEQUENCE + 1;

RETURN CONV$_SUCCESS

END;
```

```
                                                         .EXTRN  SYS$CREATE, SYS$CONNECT

                                 0004 00000              .ENTRY  CONV$PASS_OPTIONS, Save R2            ; 0525
                52       0000'  CF  9E 00002              MOVAB   CONV$GL_CREATE, R2
                         0000V  CF  9F 00007              PUSHAB  CONDITION_HANDLER                    ; 0620
        00000000G  00               01  FB 0000B              CALLS   #1, LIB$ESTABLISH
                01          F8  A2  91 00012              CMPB    SEQUENCE, #1                         ; 0624
                                08  13 00016              BEQL    1$
                50 00000000G    8F  D0 00018              MOVL    #CONV$_ORDER, R0                     ; 0626
                                    04 0001F              RET
                02              6C  91 00020 1$:          CMPB    (AP), #2                             ; 0630
                                08  1B 00023              BLEQU   2$
                50 00000000G    8F  D0 00025              MOVL    #CONV$_NARG, R0                      ; 0632
                                    04 0002C              RET
                06                  12 0002D 2$:          BNEQ    3$                                   ; 0636
          0000G CF          08  BC  B0 0002F              MOVW    @8(AP), CONV$AB_FLAGS                ; 0638
             4C A2              04  D0 00035 3$:          MOVL    #4, COUNT_COUNT                      ; 0642
                50              02  D0 00039              MOVL    #2, I                                ; 0647
                          4C A240   D4 0003C 4$:          CLRL    COUNT_BLOCK[I]                       ; 0649
      F8        50              04  F3 00040              AOBLEQ  #4, I, 4$
             FC A2              13  D0 00044              MOVL    #19, OPTION_COUNT                    ; 0653
                50              01  D0 00048              MOVL    #1, I                                ; 0657
                          FC A240   D4 0004B 5$:          CLRL    OPTION_BLOCK[I]                      ; 0659
      F8        50              13  F3 0004F              AOBLEQ  #19, I, 5$
                62              01  D0 00053              MOVL    #1, CONV$GL_CREATE                   ; 0663
             08 A2              01  D0 00056              MOVL    #1, CONV$GL_FAST                     ; 0664
             14 A2              01  D0 0005A              MOVL    #1, CONV$GL_SORT                     ; 0665
             18 A2              02  D0 0005E              MOVL    #2, CONV$GL_WORK_F                   ; 0666
```

```
                                    6C  95 00062          TSTB    (AP)                                    ;0670
                                    2C  13 00064          BEQL    10$
                                04  AC  D5 00066          TSTL    4(AP)
                                    27  13 00069          BEQL    10$
                             51     04  AC  D0 0006B          MOVL    4(AP), USER_BLOCK                       ;0676
                             13         61  D1 0006F          CMPL    (USER_BLOCK), #19                       ;0680
                                        08  1B 00072          BLEQU   6$
                             50 00000000G   8F  D0 00074          MOVL    #CONV$_BADBLK, R0                       ;0682
                                        04  00078          RET
                                        06  12 0007C 6$:       BNEQ    7$                                      ;0687
                       0000G CF         40  8F  88 0007E          BISB2   #64, CONV$AB_FLAGS+2                    ;0689
                                        50  D4 00084 7$:       CLRL    I                                       ;0693
                                        06  11 00086          BRB     9$
                          FC A240           6140  D0 00088 8$:       MOVL    (USER_BLOCK)[I], OPTION_BLOCK[I]        ;0695
                    F6                  50      61  F3 0008E 9$:       AOBLEQ  (USER_BLOCK), I, 8$
                                  0B    40  A2  E9 00092 10$:      BLBC    CONV$GL_FDL, 11$                        ;0707
                                  10        62  E9 00096          BLBC    CONV$GL_CREATE, 12$
                                  0C    0C  A2  E8 00099          BLBS    CONV$GL_MERGE, 12$                      ;0708
                                  08    10  A2  E8 0009D          BLBS    CONV$GL_APPEND, 12$                     ;0709
                                  10    0C  A2  E9 000A1 11$:      BLBC    CONV$GL_MERGE, 14$                      ;0715
                                  08    10  A2  E9 000A5          BLBC    CONV$GL_APPEND, 13$
                                  50 00000000G   8F  D0 000A9 12$:      MOVL    #CONV$_CONFQUAL, R0                     ;0717
                                        04  000B0          RET
                                  04    0C  A2  E8 000B1 13$:      BLBS    CONV$GL_MERGE, 15$                      ;0724
                                  08    10  A2  E9 000B5 14$:      BLBC    CONV$GL_APPEND, 16$
                                        62  D4 000B9 15$:      CLRL    CONV$GL_CREATE                          ;0727
                                    08  A2  D4 000BB          CLRL    CONV$GL_FAST                            ;0728
                                    14  A2  D4 000BE          CLRL    CONV$GL_SORT                            ;0729
                                  0D        62  E9 000C1 16$:      BLBC    CONV$GL_CREATE, 17$                     ;0735
                                  09    40  A2  E8 000C4          BLBS    CONV$GL_FDL, 17$
                                  01    50  A2  D1 000C8          CMPL    CONV$GL_FILE_COUNT, #1                  ;0736
                                        03  12 000CC          BNEQ    17$
                                    14  A2  D4 000CE          CLRL    CONV$GL_SORT                            ;0738
                                  03    04  A2  E9 000D1 17$:      BLBC    CONV$GL_SHARE, 18$                      ;0742
                                    14  A2  D4 000D5          CLRL    CONV$GL_SORT                            ;0744
                                  2A    44  A2  E9 000D8 18$:      BLBC    CONV$GL_EXC, 19$                        ;0751
                             C0   A2 00000000G   8F  D0 000DC          MOVL    #CONV$_OPENEXC, EXC_FAB+24              ;0757
                                      0000G CF      9F 000E4          PUSHAB  CONV$$RMS_OPEN_ERROR                    ;0761
                                        A8  A2  9F 000E8          PUSHAB  EXC_FAB
                          00000000G     00      02  FB 000EB          CALLS   #2, SYS$CREATE
                                0000G   CF      04  88 000F2          BISB2   #4, CONV$AB_FLAGS+2                     ;0765
                                      0000G CF      9F 000F7          PUSHAB  CONV$$RMS_OPEN_ERROR                    ;0769
                                      0000G CF      9F 000FB          PUSHAB  CONV$AB_EXC_RAB
                          00000000G     00      02  FB 000FF          CALLS   #2, SYS$CONNECT
                                        F8  A2  96 00106 19$:      INCB    SEQUENCE                                ;0773
                                    50      01  D0 00109          MOVL    #1, R0                                  ;0775
                                            04  0010C          RET                                             ;0777

; Routine Size:  269 bytes,    Routine Base:  _CONV$CODE + 029D
```

```
;  783          0778  1 %SBTTL  'CONVERT'
;  784          0779  1 GLOBAL ROUTINE  CONV$CONVERT =
;  785          0780  1 !++
;  786          0781  1 !
;  787          0782  1 ! Functional Description:
;  788          0783  1 !
;  789          0784  1 ! Calling Sequence:
;  790          0785  1 !
;  791          0786  1 !       CONV$CONVERT( [counter_block][,flags] )
;  792          0787  1 !
;  793          0788  1 ! Input Parameters:
;  794          0789  1 !
;  795          0790  1 !       counter_block   - ( Optional ) Address of counter block
;  796          0791  1 !
;  797          0792  1 !           Structure of counter block:
;  798          0793  1 !
;  799          0794  1 !                                 |-------------------------|
;  800          0795  1 !           counter_block -->     |  number of counters     |
;  801          0796  1 !                                 |-------------------------|
;  802          0797  1 !                                 |  number of files proc.  |
;  803          0798  1 !                                 |-------------------------|
;  804          0799  1 !                                 |  number of records      |
;  805          0800  1 !                                 |-------------------------|
;  806          0801  1 !                                 |  number of exception rec.|
;  807          0802  1 !                                 |-------------------------|
;  808          0803  1 !                                 |  number of valid records|
;  809          0804  1 !                                 |-------------------------|
;  810          0805  1 !
;  811          0806  1 !       flags           - ( Optional ) Flags longword
;  812          0807  1 !
;  813          0808  1 ! Implicit Inputs:
;  814          0809  1 !       none
;  815          0810  1 !
;  816          0811  1 ! Output Parameters:
;  817          0812  1 !       none
;  818          0813  1 !
;  819          0814  1 ! Implicit Outputs:
;  820          0815  1 !       none
;  821          0816  1 !
;  822          0817  1 ! Routine Value:
;  823          0818  1 !       none
;  824          0819  1 !
;  825          0820  1 ! Routines called:
;  826          0821  1 !
;  827          0822  1 ! Side Effects:
;  828          0823  1 !       none
;  829          0824  1 !
;  830          0825  1 !--
;  831          0826  1
;  832          0827  2     BEGIN
;  833          0828  2
;  834          0829  2     BUILTIN
;  835          0830  2         ACTUALCOUNT,
;  836          0831  2         ACTUALPARAMETER,
;  837          0832  2         NULLPARAMETER;
;  838          0833  2
;  839          0834  2     LOCAL
```

```
;  840     0835  2          STATUS;
;  841     0836  2
;  842     0837  2      ! Set up condition handler
;  843     0838  2      !
;  844     0839  2      LIB$ESTABLISH ( CONDITION_HANDLER );
;  845     0840  2
;  846     0841  2      ! Check the order of the call
;  847     0842  2      !
;  848     0843  2      IF .SEQUENCE NEQ 2
;  849     0844  2      THEN
;  850     0845  2          RETURN CONV$_ORDER
;  851     0846  2      ELSE
;  852     0847  2          SEQUENCE = .SEQUENCE + 1;
;  853     0848  2
;  854     0849  2      ! Check the number of arguments
;  855     0850  2      !
;  856     0851  2      IF ACTUALCOUNT() GTRU 2
;  857     0852  2      THEN
;  858     0853  2          RETURN CONV$_NARG;
;  859     0854  2
;  860     0855  2      ! Were there user flags?
;  861     0856  2      !
;  862     0857  2      IF ACTUALCOUNT() EQLU 2
;  863     0858  2      THEN
;  864     0859  2          CONV$AB_FLAGS [ CONV$W_USER ] = .ACTUALPARAMETER(2);
;  865     0860  2
;  866     0861  2      ! Clear some variables
;  867     0862  2      !
;  868     0863  2      CONV$GB_CURRENT_FILE = 0;
;  869     0864  2
;  870     0865  2      ! If definition then parse it
;  871     0866  2      !
;  872     0867  2      IF .CONV$GL_FDL
;  873     0868  2      THEN
;  874     0869  2          STATUS = CONV$$PARSE_DEF()
;  875     0870  2      ELSE
;  876     0871  2          STATUS = CONV$_SUCCESS;
;  877     0872  2
;  878     0873  2      ! If all is well continue
;  879     0874  2      !
;  880     0875  2      IF .STATUS
;  881     0876  2      THEN
;  882     0877  2
;  883     0878  2          ! Try to Open an Input File
;  884     0879  2          !
;  885     0880  2          IF STATUS = CONV$$OPEN_INPUT()
;  886     0881  2          THEN
;  887     0882  2              BEGIN
;  888     0883  2
;  889     0884  2              ! Try to Open an Output File
;  890     0885  2              !
;  891     0886  2              STATUS = CONV$$OPEN_OUTPUT();
;  892     0887  2
;  893     0888  2              ! Loop untill error or end
;  894     0889  2              !
;  895     0890  2              WHILE .STATUS
;  896     0891  3              DO
```

```
;  897     0892  4                BEGIN
;  898     0893  4
;  899     0894  4                ! Dynamicly Allocate the Record Buffer
;  900     0895  4                !
;  901     0896  5                IF NOT ( STATUS = CONV$$CREATE_BUFFER() )
;  902     0897  4                THEN
;  903     0898  4                    EXITLOOP;
;  904     0899  4
;  905     0900  4                ! Convert The File
;  906     0901  4                !
;  907     0902  5                IF NOT ( STATUS = CONV$$CONVERT() )
;  908     0903  4                THEN
;  909     0904  4                    EXITLOOP;
;  910     0905  4
;  911     0906  4                CONV$GB_CURRENT_FILE = .CONV$GB_CURRENT_FILE + 1;
;  912     0907  4
;  913     0908  4                IF .CONV$GB_CURRENT_FILE GEQU .CONV$GL_FILE_COUNT
;  914     0909  4                THEN
;  915     0910  4                    EXITLOOP
;  916     0911  4                ELSE
;  917     0912  4                    STATUS = CONV$$OPEN_INPUT()
;  918     0913  4
;  919     0914  4                END
;  920     0915  4
;  921     0916  2            END;
;  922     0917  2
;  923     0918  2        ! Close all Open Files and deallocate memory
;  924     0919  2        !
;  925     0920  2        RUNDOWN();
;  926     0921  2
;  927     0922  2        ! If we got a counter block copy the values into it
;  928     0923  2        !
;  929     0924  2        IF NOT NULLPARAMETER(1)
;  930     0925  2        THEN
;  931     0926  2            BEGIN
;  932     0927  2
;  933     0928  2            LOCAL   USER_BLOCK : REF VECTOR [ ,LONG ];
;  934     0929  2
;  935     0930  2            USER_BLOCK = ACTUALPARAMETER(1);
;  936     0931  2
;  937     0932  2            ! Check the size of the block
;  938     0933  2            !
;  939     0934  2            IF .USER_BLOCK [ 0 ] GTRU COUNTERS
;  940     0935  2            THEN
;  941     0936  2                STATUS = CONV$_BADBLK
;  942     0937  2            ELSE
;  943     0938  2
;  944     0939  2                ! Stuff the counts
;  945     0940  2                !
;  946     0941  2                INCR I FROM 1 TO .USER_BLOCK [ 0 ] BY 1
;  947     0942  2                DO
;  948     0943  2                    USER_BLOCK [ .I ] = .COUNT_BLOCK [ .I ]
;  949     0944  2
;  950     0945  2            END;
;  951     0946  2
;  952     0947  2        SEQUENCE = 0;
;  953     0948  2
```

```
;  954          0949  2     RETURN .STATUS
;  955          0950  2
;  956          0951  1     END;


                                    001C 00000          .ENTRY  CONV$CONVERT, Save R2,R3,R4                     ; 0779
                              54    0000G CF   9E 00002          MOVAB   CONV$GB_CURRENT_FILE, R4                ;
                              53    0000' CF   9E 00007          MOVAB   SEQUENCE, R3                            ;
                                    0000V CF   9F 0000C          PUSHAB  CONDITION_HANDLER                       ; 0839
                        00000000G   00      01   FB 00010          CALLS   #1, LIB$ESTABLISH                       ;
                                    02      63   91 00017          CMPB    SEQUENCE, #2                            ; 0843
                                            08   13 0001A          BEQL    1$                                      ;
                                    50 00000000G 8F   D0 0001C          MOVL    #CONV$_ORDER, R0                        ; 0845
                                                 04   00023          RET                                             ;
                                            63   96 00024 1$:       INCB    SEQUENCE                                ; 0847
                                    02      6C   91 00026          CMPB    (AP), #2                                ; 0851
                                            08   1B 00029          BLEQU   2$                                      ;
                                    50 00000000G 8F   D0 0002B          MOVL    #CONV$_NARG, R0                         ; 0853
                                                 04   00032          RET                                             ;
                                            06   12 00033 2$:       BNEQ    3$                                      ; 0857
                              0000G CF      08   BC B0 00035          MOVW    @8(AP), CONV$AB_FLAGS                   ; 0859
                                            64   94 0003B 3$:       CLRB    CONV$GB_CURRENT_FILE                    ; 0863
                                    0A      48   A3 E9 0003D          BLBC    CONV$GL_FDL, 4$                         ; 0867
                              0000G CF            00   FB 00041          CALLS   #0, CONV$$PARSE_DEF                     ; 0869
                                    52            50   D0 00046          MOVL    R0, STATUS                              ;
                                                  03   11 00049          BRB     5$                                      ;
                                    52            01   D0 0004B 4$:       MOVL    #1, STATUS                              ; 0871
                                    3D            52   E9 0004E 5$:       BLBC    STATUS, 7$                              ; 0875
                              0000G CF            00   FB 00051          CALLS   #0, CONV$$OPEN_INPUT                    ; 0880
                                    52            50   D0 00056          MOVL    R0, STATUS                              ;
                                    32            52   E9 00059          BLBC    STATUS, 7$                              ;
                              0000G CF            00   FB 0005C          CALLS   #0, CONV$$OPEN_OUTPUT                   ; 0886
                                    52            50   D0 00061 6$:       MOVL    R0, STATUS                              ;
                                    27            52   E9 00064          BLBC    STATUS, 7$                              ; 0890
                              0000G CF            00   FB 00067          CALLS   #0, CONV$$CREATE_BUFFER                 ; 0896
                                    52            50   D0 0006C          MOVL    R0, STATUS                              ;
                                    1C            52   E9 0006F          BLBC    STATUS, 7$                              ;
                              0000G CF            00   FB 00072          CALLS   #0, CONV$$CONVERT                       ; 0902
                                    52            50   D0 00077          MOVL    R0, STATUS                              ;
                                    11            52   E9 0007A          BLBC    STATUS, 7$                              ;
                                                  64   96 0007D          INCB    CONV$GB_CURRENT_FILE                    ; 0906
58  A3                64            08            00   ED 0007F          CMPZV   #0, #8, CONV$GB_CURRENT_FILE, -         ; 0908
                                                                                 CONV$GL_FILE_COUNT                      ;
                                                  07   1E 00085          BGEQU   7$                                      ;
                              0000G CF            00   FB 00087          CALLS   #0, CONV$$OPEN_INPUT                    ; 0912
                                                  D3   11 0008C          BRB     6$                                      ;
                              0000V CF            00   FB 0008E 7$:       CALLS   #0, RUNDOWN                             ; 0920
                                                  6C   95 00093          TSTB    (AP)                                    ; 0924
                                                  25   13 00095          BEQL    11$                                     ;
                                          04      AC   D5 00097          TSTL    4(AP)                                   ;
                                                  20   13 0009A          BEQL    11$                                     ;
                                    51    04      AC   D0 0009C          MOVL    4(AP), USER_BLOCK                       ; 0930
                                    04            61   D1 000A0          CMPL    (USER_BLOCK), #4                        ; 0934
                                                  09   1B 000A3          BLEQU   8$                                      ;
```

```
                          52 00000000G   8F   D0 000A5                MOVL    #CONV$_BADBLK, STATUS                   ; 0936
                                         0E   11 000AC                BRB     11$                                     ;
                                         50   D4 000AE 88:            CLRL    I                                       ; 0941
                                         06   11 000B0                BRB     10$                                     ;
                        6140       54 A340   D0 000B2 9$:            MOVL    COUNT_BLOCK[I], (USER_BLOCK)[I]         ; 0943
                    F6   50            61   F3 000B8 10$:           AOBLEQ  (USER_BLOCK), I, 9$                     ;
                                       63   94 000BC 11$:           CLRB    SEQUENCE                                ; 0947
                         50            52   D0 000BE                MOVL    STATUS, R0                              ; 0949
                                            04 000C1                RET                                             ; 0951

; Routine Size:  194 bytes,    Routine Base:  _CONV$CODE + 03AA
```

```
;  958          0952  1 %SBTTL  'ADD_KEY'
;  959          0953  1 GLOBAL ROUTINE  CONV$ADD_KEY =
;  960          0954  1 !++
;  961          0955  1 !
;  962          0956  1 ! Functional Description:
;  963          0957  1 !
;  964          0958  1 !       CONVERT/ADD_KEY call interface routine
;  965          0959  1 !
;  966          0960  1 ! Calling Sequence:
;  967          0961  1 !
;  968          0962  1 !       CONV$ADD_KEY( file_name_desc,fdl_file_desc,key[,stat_blk][,flags] )
;  969          0963  1 !
;  970          0964  1 ! Input Parameters:
;  971          0965  1 !
;  972          0966  1 !       file_name_desc  - Address of a string descriptor to be used as
;  973          0967  1 !                         the input file name
;  974          0968  1 !
;  975          0969  1 !       fdl_file_desc   - Address of a string descriptor to be used as
;  976          0970  1 !                         the fdl file name
;  977          0971  1 !
;  978          0972  1 !       key             - Key of reference to add
;  979          0973  1 !
;  980          0974  1 !       stat_blk        - ( Optional ) Address of a block of longwords
;  981          0975  1 !                         which will receive the statistics
;  982          0976  1 !
;  983          0977  1 !       flags           - ( Optional ) Flags longword
;  984          0978  1 !
;  985          0979  1 ! Implicit Inputs:
;  986          0980  1 !       none
;  987          0981  1 !
;  988          0982  1 ! Output Parameters:
;  989          0983  1 !
;  990          0984  1 !       stat_blk
;  991          0985  1 !
;  992          0986  1 ! Implicit Outputs:
;  993          0987  1 !       none
;  994          0988  1 !
;  995          0989  1 ! Routine Value:
;  996          0990  1 !       none
;  997          0991  1 !
;  998          0992  1 ! Routines Called:
;  999          0993  1 !
; 1000          0994  1 !
; 1001          0995  1 ! Side Effects:
; 1002          0996  1 !       none
; 1003          0997  1 !
; 1004          0998  1 !--
; 1005          0999  1
; 1006          1000  2     BEGIN
; 1007          1001  2
; 1008          1002  2     BUILTIN
; 1009          1003  2         ACTUALCOUNT,
; 1010          1004  2         ACTUALPARAMETER,
; 1011          1005  2         NULLPARAMETER;
; 1012          1006  2
; 1013          1007  2     DEFINE_KEY_DESC_GLOBAL;
; 1014          1008  2
```

```
;  1015     1009  2      LOCAL
;  1016     1010  2          BYTES,
;  1017     1011  2          VM_POINTER,
;  1018     1012  2          STATUS;
;  1019     1013  2
;  1020     1014  2      ! Set up the exit handler
;  1021     1015  2      !
;  1022     1016  2      LIBSESTABLISH( CONDITION_HANDLER );
;  1023     1017  2
;  1024     1018  2      ! Check to make sure convert is not being called
;  1025     1019  2      !
;  1026     1020  2      IF .SEQUENCE NEQU 0
;  1027     1021  2      THEN
;  1028     1022  2          RETURN CONV$_ORDER;
;  1029     1023  2
;  1030     1024  2      ! This call needs at least three arguments and no more then 5
;  1031     1025  2      !
;  1032     1026  2      IF ( ACTUALCOUNT() LSSU 3 ) OR ( ACTUALCOUNT() GTRU 5 )
;  1033     1027  2      THEN
;  1034     1028  2          RETURN CONV$_NARG;
;  1035     1029  2
;  1036     1030  2      ! Clear the flags
;  1037     1031  2      !
;  1038     1032  2      CONV$AB_FLAGS = _CLEAR;
;  1039     1033  2
;  1040     1034  2      ! If the user specified a flags parameter stuff it
;  1041     1035  2      !
;  1042     1036  2      IF ACTUALCOUNT() EQLU 5
;  1043     1037  2      THEN
;  1044     1038  2          CONV$AB_FLAGS [ CONV$W_USER ] = .ACTUALPARAMETER(5);
;  1045     1039  2
;  1046     1040  2      ! Allocate memory for all of the name block buffers
;  1047     1041  2      !
;  1048     1042  2      BYTES = ESA_BUF_SIZ + RSA_BUF_SIZ;
;  1049     1043  2
;  1050     1044  2      VM_POINTER = CONV$$GET_VM ( .BYTES );
;  1051     1045  2
;  1052     1046  2      ! Init the output RMS blocks
;  1053     1047  2      !
;  1054     1048  2      ! The FAB
;  1055     1049  2      !
;  1056   P 1050  2      $FAB_INIT ( FAB = CONV$AB_OUT_FAB,
;  1057   P 1051  2                  FAC = <BRO,GET,PUT>,
;  1058   P 1052  2                  FOP = <DFW,NAM,OFP,SQO>,
;  1059   P 1053  2                  NAM = CONV$AB_OUT_NAM,
;  1060     1054  2                  XAB = CONV$AB_OUT_XABSUM );
;  1061     1055  2
;  1062     1056  2      ! The RAB
;  1063     1057  2      !
;  1064   P 1058  2      $RAB_INIT ( RAB = CONV$AB_OUT_RAB,
;  1065   P 1059  2                  FAB = CONV$AB_OUT_FAB,
;  1066     1060  2                  ROP = <BIO,WBH> );
;  1067     1061  2
;  1068     1062  2      ! The name block
;  1069     1063  2      !
;  1070   P 1064  2      $NAM_INIT ( NAM = CONV$AB_OUT_NAM,
;  1071   P 1065  2                  ESA = .VM_POINTER,
```

```
;  1072        P 1066  2                   ESS = ESA_BUF_SIZ,
;  1073        P 1067  2                   RSA = .VM_POINTER + ESA_BUF_SIZ,
;  1074          1068  2                   RSS = RSA_BUF_SIZ );
;  1075          1069  2
;  1076          1070  2           ! The 1st argument is the output file name
;  1077          1071  2           !
;  1078          1072  2           IF NULLPARAMETER(1)
;  1079          1073  2           THEN
;  1080          1074  2               RETURN CONV$_ILL_VALUE
;  1081          1075  2           ELSE
;  1082          1076  2               CONV$AR_OUT_FILE_NAM = COPY_DESC( ACTUALPARAMETER( 1 ) );
;  1083          1077  2
;  1084          1078  2           ! The 2nd argument is the fdl file descriptor
;  1085          1079  2           !
;  1086          1080  2           IF NULLPARAMETER(2)
;  1087          1081  2           THEN
;  1088          1082  2               RETURN CONV$_ILL_VALUE
;  1089          1083  2           ELSE
;  1090          1084  2               CONV$AR_FDL_FILE_NAM = COPY_DESC( ACTUALPARAMETER( 2 ) );
;  1091          1085  2
;  1092          1086  2           ! The 3rd argument is the key of ref. to add
;  1093          1087  2           !
;  1094          1088  2           IF NULLPARAMETER(3)
;  1095          1089  2           THEN
;  1096          1090  2               RETURN CONV$_ILL_VALUE
;  1097          1091  2           ELSE
;  1098          1092  2               CONV$GL_ADD_DELE_KEY = .ACTUALPARAMETER( 3 );
;  1099          1093  2
;  1100          1094  2           ! Open the output file
;  1101          1095  2           !
;  1102          1096  2           IF STATUS = ADD$$OPEN_OUTPUT()
;  1103          1097  2           THEN
;  1104          1098  2
;  1105          1099  2               ! Check the input key and fdl key and make index desc for it
;  1106          1100  2               !
;  1107          1101  2               IF STATUS = ADD$$CHECK_KEY()
;  1108          1102  2               THEN
;  1109          1103  2
;  1110          1104  2                   ! Load the key into the file
;  1111          1105  2                   !
;  1112          1106  2                   STATUS = ADD$$LOAD_KEY();
;  1113          1107  2
;  1114          1108  2           ! Close the file and deallocate memory
;  1115          1109  2           !
;  1116          1110  2           RUNDOWN();
;  1117          1111  2
;  1118          1112  2           ! If there was a 4th parameter stuff it with the statistics block addr.
;  1119          1113  2           !
;  1120          1114  2           IF NOT NULLPARAMETER(4)
;  1121          1115  2           THEN
;  1122          1116  2               BEGIN
;  1123          1117  2
;  1124          1118  2               LOCAL
;  1125          1119  2                   USER_BLOCK : REF VECTOR [ ,LONG ];
;  1126          1120  2
;  1127          1121  2               ! Get the user block
;  1128          1122  3               !
```

```
;  1129     1123  3          USER_BLOCK = ACTUALPARAMETER(4);
;  1130     1124  3
;  1131     1125  3          ! Check to see if there really is one
;  1132     1126  3          !
;  1133     1127  3          IF .USER_BLOCK NEQ 0
;  1134     1128  3          THEN
;  1135     1129  4              BEGIN
;  1136     1130  4
;  1137     1131  4              INCR I FROM 1 TO .USER_BLOCK [ 0 ] BY 1
;  1138     1132  4              DO
;  1139     1133  4                  USER_BLOCK [ .I ] = .STATISTICS_BLOCK [ .I ]
;  1140     1134  4
;  1141     1135  4              END
;  1142     1136  4
;  1143     1137  3          END;
;  1144     1138  3
;  1145     1139  2      RETURN .STATUS
;  1146     1140  2
;  1147     1141  1      END;


                                        0FFC 00000          .ENTRY  CONV$ADD_KEY, Save R2,R3,R4,R5,R6,R7,R8,R9,-; 0953
                                                                    R10,R11
                                 58     0000G   CF  9E 00002       MOVAB   $RMS_PTR, R8
                                 57     0000G   CF  9E 00007       MOVAB   CONV$AB_OUT_NAM, R7
                                 56     0000G   CF  9E 0000C       MOVAB   $RMS_PTR, R6
                                        0000V   CF  9F 00011       PUSHAB  CONDITION_HANDLER                           1016
                    00000000G    00             01  FB 00015       CALLS   #1, LIB$ESTABLISH
                                        0000'   CF  95 0001C       TSTB    SEQUENCE                                    1020
                                                08  13 00020       BEQL    1$
                                 50 00000000G   8F  D0 00022       MOVL    #CONV$_ORDER, R0                            1022
                                                04  00029       RET
                                 03             6C  91 0002A 1$:    CMPB    (AP), #3                                    1026
                                                05  1F 0002D       BLSSU   2$
                                 05             6C  91 0002F       CMPB    (AP), #5
                                                08  1B 00032       BLEQU   3$
                                 50 00000000G   8F  D0 00034 2$:    MOVL    #CONV$_NARG, R0                             1028
                                                04  00038       RET
                                        0000G   CF  D4 0003C 3$:    CLRL    CONV$AB_FLAGS                               1032
                                 05             6C  91 00040       CMPB    (AP), #5                                    1036
                                                06  12 00043       BNEQ    4$
                          0000G  CF       14     BC  B0 00045       MOVW    @20(AP), CONV$AB_FLAGS                      1038
                                 50       A0     8F  9A 0004B 4$:    MOVZBL  #160, BYTES                                 1042
                                                50  DD 0004F       PUSHL   BYTES                                       1044
                                            0000G   30 00051       BSBW    CONV$$GET_VM
                                 5E                 04  C0 00054       ADDL2   #4, SP
                                 5B                 50  D0 00057       MOVL    R0, VM_POINTER
0050   8F                00      6E                 00  2C 0005A       MOVC5   #0, (SP), #0, #80, $RMS_PTR                 1054
                                                   66  00061
                                 66     5003    8F  B0 00062       MOVW    #20483, $RMS_PTR
                           04    A6 21000060    8F  D0 00067       MOVL    #553648224, $RMS_PTR+4
                           16    A6       43    8F  90 0006F       MOVB    #67, $RMS_PTR+22
                           1F    A6             02  90 00074       MOVB    #2, $RMS_PTR+31
                           24    A6     0000G   CF  9E 00078       MOVAB   CONV$AB_OUT_XABSUM, $RMS_PTR+36
```

```
                      28  A6              67  9E 0007E         MOVAB   CONV$AB_OUT_NAM, $RMS_PTR+40
0044  8F                00  6E              00  2C 00082         MOVC5   #0, (SP), #0, #68, $RMS_PTR                     ;1060
                                            68  00089
                          68  4401          8F  B0 0008A         MOVW    #17409, $RMS_PTR
                      04  A8  0C00          8F  3C 0008F         MOVZWL  #3072, $RMS_PTR+4
                      3C  A8                  66  9E 00095         MOVAB   CONV$AB_OUT_FAB, $RMS_PTR+60
0060  8F                00  6E              00  2C 00099         MOVC5   #0, (SP), #96, $RMS_PTR                     ;1068
                                            67  000A0
                          67  6002          8F  B0 000A1         MOVW    #24578, $RMS_PTR
                      02  A7    50          8F  90 000A6         MOVB    #80, $RMS_PTR+2
                      04  A7    50          AB  9E 000AB         MOVAB   80(R11), $RMS_PTR+4
                      0A  A7    50          8F  90 000B0         MOVB    #80, $RMS_PTR+10
                      0C  A7                5B  D0 000B5         MOVL    VM_POINTER, $RMS_PTR+12
                                            6C  95 000B9         TSTB    (AP)                                        ;1072
                                            31  13 000BB         BEQL    5$
                              04    AC      D5 000BD             TSTL    4(AP)
                                            2C  13 000C0         BEQL    5$
                          50  04    AC      D0 000C2             MOVL    4(AP), R0                                   ;1076
                                0000V 30      000C6             BSBW    COPY_DESC
                  0000G   CF            50  D0 000C9             MOVL    R0, CONV$AR_OUT_FILE_NAM
                          02            6C  91 000CE             CMPB    (AP), #2                                    ;1080
                                        1B  1F 000D1             BLSSU   5$
                              08    AC      D5 000D3             TSTL    8(AP)
                                            16  13 000D6         BEQL    5$
                          50  08    AC      D0 000D8             MOVL    8(AP), R0                                   ;1084
                                0000V 30      000DC             BSBW    COPY_DESC
                  0000G   CF            50  D0 000DF             MOVL    R0, CONV$AR_FDL_FILE_NAM
                          03            6C  91 000E4             CMPB    (AP), #3                                    ;1088
                                        05  1F 000E7             BLSSU   5$
                              0C    AC      D5 000E9             TSTL    12(AP)
                                            08  12 000EC         BNEQ    6$
                          50 00000000G  8F  D0 000EE 5$:         MOVL    #CONV$_ILL_VALUE, R0                        ;1090
                                            04  000F5             RET
                  0000G   CF    0C      BC  D0 000F6 6$:         MOVL    @12(AP), CONV$GL_ADD_DELE_KEY               ;1092
                  0000G   CF            00  FB 000FC             CALLS   #0, ADD$$OPEN_OUTPUT                        ;1096
                          52            50  D0 00101             MOVL    R0, STATUS
                          0F            52  E9 00104             BLBC    STATUS, 7$
                                0000G 30      00107             BSBW    ADD$$CHECK_KEY                              ;1101
                          52            50  D0 0010A             MOVL    R0, STATUS
                          06            52  E9 0010D             BLBC    STATUS, 7$
                                0000G 30      00110             BSBW    ADD$$LOAD_KEY                               ;1106
                          52            50  D0 00113             MOVL    R0, STATUS
                  0000V   CF            00  FB 00116 7$:         CALLS   #0, RUNDOWN                                 ;1110
                          04            6C  91 0011B             CMPB    (AP), #4                                    ;1114
                                        1A  1F 0011E             BLSSU   10$
                              10    AC      D5 00120             TSTL    16(AP)
                                            15  13 00123         BEQL    10$
                          51  10    AC      D0 00125             MOVL    16(AP), USER_BLOCK                          ;1123
                                            0F  13 00129         BEQL    10$                                         ;1127
                                            50  D4 0012B         CLRL    I                                           ;1131
                                            07  11 0012D         BRB     9$
                    6140  0000'CF40      D0 0012F 8$:         MOVL    STATISTICS_BLOCK[I], (USER_BLOCK)[I]        ;1133
                F5    50                61  F3 00136 9$:         AOBLEQ  (USER_BLOCK), I, 8$
                      50                52  D0 0013A 10$:        MOVL    STATUS, R0                                  ;1139
                                            04  0013D             RET                                         ;1141

; Routine Size:  318 bytes,    Routine Base:  _CONV$CODE + 046C
```

```
;  1149          1142  1 %SBTTL  'RECLAIM'
;  1150          1143  1 GLOBAL ROUTINE  CONV$RECLAIM =
;  1151          1144  1 !++
;  1152          1145  1 !
;  1153          1146  1 ! Functional Description:
;  1154          1147  1 !
;  1155          1148  1 !       CONVERT/RECLAIM call interface routine
;  1156          1149  1 !
;  1157          1150  1 ! Calling Sequence:
;  1158          1151  1 !
;  1159          1152  1 !       CONV$RECLAIM( file_name_desc[,stat_blk][,flags] )
;  1160          1153  1 !
;  1161          1154  1 ! Input Parameters:
;  1162          1155  1 !
;  1163          1156  1 !       file_name_desc  - Address of a string descriptor to be used as
;  1164          1157  1 !                         the input file name
;  1165          1158  1 !
;  1166          1159  1 !       stat_blk        - ( Optional ) Address of a block of longwords
;  1167          1160  1 !                         which will receive the statistics
;  1168          1161  1 !
;  1169          1162  1 !       flags           - ( Optional ) Flags longword
;  1170          1163  1 !
;  1171          1164  1 ! Implicit Inputs:
;  1172          1165  1 !       none
;  1173          1166  1 !
;  1174          1167  1 ! Output Parameters:
;  1175          1168  1 !
;  1176          1169  1 !       stat_blk
;  1177          1170  1 !
;  1178          1171  1 ! Implicit Outputs:
;  1179          1172  1 !       none
;  1180          1173  1 !
;  1181          1174  1 ! Routine Value:
;  1182          1175  1 !       none
;  1183          1176  1 !
;  1184          1177  1 ! Routines Called:
;  1185          1178  1 !
;  1186          1179  1 !       RECL$$OPEN_FILE
;  1187          1180  1 !       CONV$$SET_KEY_DESC
;  1188          1181  1 !       CONV$$GET_NEXT_KEY
;  1189          1182  1 !       RECL$$ALLOCATE_BUFFERS
;  1190          1183  1 !       RECL$$SCAN_DATA_LEVEL
;  1191          1184  1 !       RUNDOWN
;  1192          1185  1 !
;  1193          1186  1 ! Side Effects:
;  1194          1187  1 !       none
;  1195          1188  1 !
;  1196          1189  1 !--
;  1197          1190  1
;  1198          1191  2     BEGIN
;  1199          1192  2
;  1200          1193  2     BUILTIN
;  1201          1194  2         ACTUALCOUNT,
;  1202          1195  2         ACTUALPARAMETER,
;  1203          1196  2         NULLPARAMETER;
;  1204          1197  2
;  1205          1198  2     DEFINE_CTX_GLOBAL;
```

```
;  1206          1199  2     DEFINE_BUCKET_GLOBAL;
;  1207          1200  2     DEFINE_KEY_DESC_GLOBAL;
;  1208          1201  2
;  1209          1202  2     LOCAL
;  1210          1203  2         STATUS;
;  1211          1204  2
;  1212          1205  2     ! Set up the exit handler
;  1213          1206  2     !
;  1214          1207  2     LIB$ESTABLISH ( CONDITION_HANDLER );
;  1215          1208  2
;  1216          1209  2     ! Check to make sure convert is not being called
;  1217          1210  2     !
;  1218          1211  2     IF .SEQUENCE NEQU 0
;  1219          1212  2     THEN
;  1220          1213  2         RETURN CONV$_ORDER;
;  1221          1214  2
;  1222          1215  2     ! Check on the number of arguments
;  1223          1216  2     !
;  1224          1217  2     IF ( ACTUALCOUNT() LSSU 1 ) OR ( ACTUALCOUNT() GTRU 3 )
;  1225          1218  2     THEN
;  1226          1219  2         RETURN CONV$_NARG;
;  1227          1220  2
;  1228          1221  2     ! Clear the flags and counters
;  1229          1222  2     !
;  1230          1223  2     CONV$AB_FLAGS        = _CLEAR;
;  1231          1224  2     RECL$GL_BUCKET_COUNT= _CLEAR;
;  1232          1225  2     RECL$GL_DATA_COUNT   = _CLEAR;
;  1233          1226  2     RECL$GL_INDEX_COUNT = _CLEAR;
;  1234          1227  2
;  1235          1228  2     ! Was user flags specified
;  1236          1229  2     !
;  1237          1230  2     IF ACTUALCOUNT() EQLU 3
;  1238          1231  2     THEN
;  1239          1232  2         CONV$AB_FLAGS [ CONV$W_USER ] = .ACTUALPARAMETER(3);
;  1240          1233  2
;  1241          1234  2     ! Open the file
;  1242          1235  2     !
;  1243          1236  2     IF NULLPARAMETER(1)
;  1244          1237  2     THEN
;  1245          1238  2         RETURN CONV$_ILL_VALUE
;  1246          1239  2     ELSE
;  1247          1240  2         RET_ON_ERROR( RECL$$OPEN_FILE( ACTUALPARAMETER(1) ) );
;  1248          1241  2
;  1249          1242  2     ! Get the first key
;  1250          1243  2     !
;  1251          1244  3     IF ( STATUS = CONV$$SET_KEY_DESC( 0 ) )
;  1252          1245  2     THEN
;  1253          1246  2
;  1254          1247  2         ! Process the keys
;  1255          1248  2         !
;  1256          1249  2         DO
;  1257          1250  3             BEGIN
;  1258          1251  3
;  1259          1252  3             ! If the index is not initialized don't try to do anything
;  1260          1253  3             ! with it
;  1261          1254  3             !
;  1262          1255  3             IF NOT .KEY_DESC [ KEY$V_INITIDX ]
```

```
                THEN
                    BEGIN

                    ! Allocate bucket buffers and the context block
                    !
                    IF NOT ( STATUS = RECL$$ALLOCATE_BUFFERS() )
                    THEN
                        EXITLOOP;

                    ! Scan the data level buckets and remove the empties
                    !
                    IF NOT ( STATUS = RECL$$SCAN_DATA_LEVEL() )
                    THEN
                        EXITLOOP;

                    ! Deallocate memory used foe the bucket buffers
                    !
                    CONV$$FREE_TEMP_VM()

                    END
                END
            UNTIL NOT CONV$$GET_NEXT_KEY();

        ! Close the file and deallocate memory
        !
        RUNDOWN();

        ! If there was a second parameter stuff it with the statistics block addr.
        !
        IF NOT NULLPARAMETER(2)
        THEN
            BEGIN

            LOCAL
                USER_BLOCK : REF VECTOR [ ,LONG ];

            ! Get the user block
            !
            USER_BLOCK = ACTUALPARAMETER(2);

            ! Check to see if there really is one
            !
            IF .USER_BLOCK NEQ 0
            THEN
                BEGIN

                ! Stuff the total bucket count
                !
                STATISTICS_BLOCK [ 4 ] = .RECL$GL_DATA_COUNT + .RECL$GL_INDEX_COUNT;

                INCR I FROM 1 TO .USER_BLOCK [ 0 ] BY 1
                DO
                    USER_BLOCK [ .I ] = .STATISTICS_BLOCK [ .I ]

                END

            END;
```

```
;  1320          1313  2
;  1321          1314  2      RETURN .STATUS
;  1322          1315  2
;  1323          1316  1      END;


                                        0FFC 00000          .ENTRY  CONV$RECLAIM, Save R2,R3,R4,R5,R6,R7,R8,R9,-;  1143
                                                                    R10,R11
                                53      0000'  CF   9E 00002        MOVAB   RECL$GL_INDEX_COUNT, R3
                                       0000V   CF   9F 00007        PUSHAB  CONDITION_HANDLER                       1207
                          00000000G    00      01   FB 0000B        CALLS   #1, LIB$ESTABLISH
                                         8C    A3   95 00012        TSTB    SEQUENCE                                1211
                                               08   13 00015        BEQL    1$
                                50 00000000G    8F   D0 00017        MOVL    #CONV$_ORDER, R0                        1213
                                               04   04 0001E        RET
                                               6C   95 0001F  1$:   TSTB    (AP)                                    1217
                                               05   13 00021        BEQL    2$
                                03             6C   91 00023        CMPB    (AP), #3
                                               08   1B 00026        BLEQU   3$
                                50 00000000G    8F   D0 00028  2$:   MOVL    #CONV$_NARG, R0                         1219
                                               04   04 0002F        RET
                                     0000G     CF   D4 00030  3$:   CLRL    CONV$AB_FLAGS                           1223
                                       F8      A3   7C 00034        CLRQ    RECL$GL_BUCKET_COUNT                    1224
                                               63   D4 00037        CLRL    RECL$GL_INDEX_COUNT                     1226
                                03             6C   91 00039        CMPB    (AP), #3                                1230
                                               06   12 0003C        BNEQ    4$
                              0000G  CF        0C   BC   B0 0003E        MOVW    @12(AP), CONV$AB_FLAGS                  1232
                                               6C   95 00044  4$:   TSTB    (AP)                                    1236
                                               05   13 00046        BEQL    5$
                                         04    AC   D5 00048        TSTL    4(AP)
                                               08   12 0004B        BNEQ    6$
                                50 00000000G    8F   D0 0004D  5$:   MOVL    #CONV$_ILL_VALUE, R0                    1238
                                               04   04 00054        RET
                                         04    AC   DD 00055  6$:   PUSHL   4(AP)                                   1240
                                0000G  CF              01   FB 00058        CALLS   #1, RECL$$OPEN_FILE
                                       5A              50   E9 0005D        BLBC    STATUS, 13$
                                                       7E   D4 00060        CLRL    -(SP)                           1244
                                                 0000G 30   00062        BSBW    CONV$$SET_KEY_DESC
                                       5E              04   C0 00065        ADDL2   #4, SP
                                       52              50   D0 00068        MOVL    R0, STATUS
                                       20              52   E9 0006B        BLBC    STATUS, 9$
                                15        10    AB      04   E0 0006E  7$:   BBS     #4, 16(KEY_DESC), 8$            1255
                                                 0000G 30   00073        BSBW    RECL$$ALLOCATE_BUFFERS                  1261
                                       52              50   D0 00076        MOVL    R0, STATUS
                                       12              52   E9 00079        BLBC    STATUS, 9$
                                                 0000G 30   0007C        BSBW    RECL$$SCAN_DATA_LEVEL                   1267
                                       52              50   D0 0007F        MOVL    R0, STATUS
                                       09              52   E9 00082        BLBC    STATUS, 9$
                                                 0000G 30   00085        BSBW    CONV$$FREE_TEMP_VM                      1273
                                                 0000G 30   00088  8$:   BSBW    CONV$$GET_NEXT_KEY                      1277
                                       E0              50   E8 0008B        BLBS    R0, 7$
                                0000V  CF              00   FB 0008E  9$:   CALLS   #0, RUNDOWN                       1281
                                       02              6C   91 00093        CMPB    (AP), #2                        1285
                                                       1F   1F 00096        BLSSU   12$
```

```
                                        08   AC  D5 00098          TSTL    8(AP)                                                    ;
                                             1A  13 0009B          BEQL    12$                                                      ;
                                     51      08   AC  D0 0009D          MOVL    8(AP), USER_BLOCK                                        ; 1294
                                             14  13 000A1          BEQL    12$                                                      ; 1298
                 04   A3      FC   A3            63  C1 000A3          ADDL3   RECL$GL_INDEX_COUNT, RECL$GL_DATA_COUNT, -               ; 1304
                                                                            STATISTICS_BLOCK+16
                                             50  D4 000A9          CLRL    I                                                        ; 1306
                                             06  11 000AB          BRB     11$
                                6140         F4 A340  D0 000AD 10$:     MOVL    STATISTICS_BLOCK[I], (USER_BLOCK)[I]             ; 1308
                         F6       50             61  F3 000B3 11$:     AOBLEQ  (USER_BLOCK), I, 10$
                                  50             52  D0 000B7 12$:     MOVL    STATUS, R0                                       ; 1314
                                                 04 000BA 13$:     RET                                                              ; 1316

; Routine Size:  187 bytes,    Routine Base:  _CONV$CODE + 05AA
```

```
;  1325          1317  1 %SBTTL  'RUNDOWN'
;  1326          1318  1 ROUTINE RUNDOWN : NOVALUE =
;  1327          1319  1 !++
;  1328          1320  1 !
;  1329          1321  1 ! Functional Description:
;  1330          1322  1 !
;  1331          1323  1 !       Close all open files and deallocate memory
;  1332          1324  1 !
;  1333          1325  1 ! Calling Sequence:
;  1334          1326  1 !
;  1335          1327  1 !       RUNDOWN()
;  1336          1328  1 !
;  1337          1329  1 ! Input Parameters:
;  1338          1330  1 !       none
;  1339          1331  1 !
;  1340          1332  1 ! Implicit Inputs:
;  1341          1333  1 !       none
;  1342          1334  1 !
;  1343          1335  1 ! Output Parameters:
;  1344          1336  1 !       none
;  1345          1337  1 !
;  1346          1338  1 ! Implicit Outputs:
;  1347          1339  1 !       none
;  1348          1340  1 !
;  1349          1341  1 ! Routine Value:
;  1350          1342  1 !       none
;  1351          1343  1 !
;  1352          1344  1 ! Routines Called:
;  1353          1345  1 !
;  1354          1346  1 !       $DISCONNECT
;  1355          1347  1 !       $CLOSE
;  1356          1348  1 !       CONV$$FREE_TEMP_VM
;  1357          1349  1 !       CONV$$FREE_VM
;  1358          1350  1 !
;  1359          1351  1 ! Side Effects:
;  1360          1352  1 !
;  1361          1353  1 !       Closes all files and deallocates memory
;  1362          1354  1 !
;  1363          1355  1 !--
;  1364          1356  1
;  1365          1357  2     BEGIN
;  1366          1358  2
;  1367          1359  2     ! Clear the sequencing so we can start over again
;  1368          1360  2     !
;  1369          1361  2     SEQUENCE = 0;
;  1370          1362  2
;  1371          1363  2     ! Free any miscellaneous memory held by LIB$FIND_FILE
;  1372          1364  2     !
;  1373          1365  2     LIB$FIND_FILE_END(CONV$GL_FINDFILE_CTX);
;  1374          1366  2
;  1375          1367  2     ! Close any open files
;  1376          1368  2     !
;  1377          1369  2     ! Start with input file and RFA file
;  1378          1370  2     !
;  1379          1371  2     CONV$$END_OF_FILE();
;  1380          1372  2
;  1381          1373  2     ! Output File
```

```
;  1382     1374  2      !
;  1383     1375  2      IF .CONV$AB_FLAGS [ CONV$V_OUT ]
;  1384     1376  2      THEN
;  1385     1377  3          BEGIN
;  1386     1378  3          !
;  1387     1379  3          ! If we're doing a FTN --> STM conversion, then we
;  1388     1380  3          !       need to flush our STM buffer now.
;  1389     1381  3          !
;  1390     1382  3          IF .CONV$AB_FLAGS [ CONV$V_MAPFTN ] EQL CONV$C_FTNSTM
;  1391     1383  3          THEN
;  1392     1384  4              BEGIN
;  1393     1385  4              CONV$GW_OUT_REC_SIZ = .CONV$GL_STM_REC_LEN;
;  1394     1386  4              CONV$AB_OUT_RAB [RAB$L_RBF] = .CONV$GL_STM_BUF;
;  1395     1387  4              CONV$$PUT_RECORD ();
;  1396     1388  4              END;
;  1397     1389  3          $DISCONNECT( RAB=CONV$AB_OUT_RAB );
;  1398     1390  3          $CLOSE( FAB=CONV$AB_OUT_FAB );
;  1399     1391  2          END;
;  1400     1392  2
;  1401     1393  2      ! If an Exception file was used close it
;  1402     1394  2      !
;  1403     1395  2      IF .CONV$AB_FLAGS [ CONV$V_EXC ]
;  1404     1396  2      THEN
;  1405     1397  3          BEGIN
;  1406     1398  3          $DISCONNECT( RAB=CONV$AB_EXC_RAB );
;  1407     1399  3          $CLOSE( FAB=EXC_FAB )
;  1408     1400  2          END;
;  1409     1401  2
;  1410     1402  2      ! Deallocate any loose memory floating around
;  1411     1403  2      !
;  1412     1404  2      CONV$$FREE_TEMP_VM();
;  1413     1405  2      CONV$$FREE_VM();
;  1414     1406  2
;  1415     1407  2      RETURN
;  1416     1408  2
;  1417     1409  1      END;


                                                        .EXTRN  SYS$DISCONNECT, SYS$CLOSE

                                              0FFC 00000 RUNDOWN::.WORD   Save R2,R3,R4,R5,R6,R7,R8,R9,R10,R11          ;  1318
                                   54     0000G CF   9E 00002         MOVAB  CONV$AB_FLAGS+2, R4                       ;
                                   53 00000000G 00   9E 00007         MOVAB  SYS$CLOSE, R3                             ;
                                   52 00000000G 00   9E 0000E         MOVAB  SYS$DISCONNECT, R2                        ;
                                         0000' CF   94 00015         CLRB   SEQUENCE                                  ;  1361
                                         0000G CF   9F 00019         PUSHAB CONV$GL_FINDFILE_CTX                      ;  1365
                                00000000G   00      01 FB 0001D         CALLS  #1, LIB$FIND_FILE_END                     ;
                                    0000G   CF      00 FB 00024         CALLS  #0, CONV$$END_OF_FILE                     ;  1371
                                      2A            64 E1 00029         BBC    #1, CONV$AB_FLAGS+2, 2$                   ;  1375
                                02    64            02 ED 0002D         CMPZV  #7, #2, CONV$AB_FLAGS+2, #2               ;  1382
                                                  15 12 00032         BNEQ   1$                                        ;
                                    0000G   CF    0000G CF   B0 00034         MOVW   CONV$GL_STM_REC_LEN, CONV$GW_OUT_REC_SIZ   ;  1385
                                    0000G   CF    0000G CF   D0 0003B         MOVL   CONV$GL_STM_BUF, CONV$AB_OUT_RAB+40        ;  1386
                                00000000G   00      00 FB 00042         CALLS  #0, CONV$$PUT_RECORD                      ;  1387
                                                  0000G CF   9F 00049 1$:     PUSHAB CONV$AB_OUT_RAB                           ;  1389
                                         62           01 FB 0004D         CALLS  #1, SYS$DISCONNECT                        ;
```

```
                          0000G  CF  9F 00050          PUSHAB  CONV$AB_OUT_FAB                 ; 1390
                      63          01  FB 00054          CALLS   #1, SYS$CLOSE                   ;
                   0E     64      02  E1 00057 2$:       BBC     #2, CONV$AB_FLAGS+2, 3$         ; 1395
                          0000G  CF  9F 0005B          PUSHAB  CONV$AB_EXC_RAB                 ; 1398
                      62          01  FB 0005F          CALLS   #1, SYS$DISCONNECT              ;
                          0000'  CF  9F 00062          PUSHAB  EXC_FAB                         ; 1399
                      63          01  FB 00066          CALLS   #1, SYS$CLOSE                   ;
                               0000G 30 00069 3$:      BSBW    CONV$$FREE_TEMP_VM              ; 1404
                               0000G 30 0006C          BSBW    CONV$$FREE_VM                   ; 1405
                                     04 0006F          RET                                     ; 1409

; Routine Size:  112 bytes,    Routine Base:  _CONV$CODE + 0665
```

```
;  1419     1410  1 %SBTTL  'CONDITION_HANDLER'
;  1420     1411  1 ROUTINE CONDITION_HANDLER ( SIGNAL_VECTOR : REF BLOCK [ ,BYTE ],MECH_VECTOR ) =
;  1421     1412  1 !++
;  1422     1413  1 !
;  1423     1414  1 ! Functional Description:
;  1424     1415  1 !
;  1425     1416  1 !       Exception handler to make sure files are closed for the call interface
;  1426     1417  1 !
;  1427     1418  1 ! Calling Sequence:
;  1428     1419  1 !
;  1429     1420  1 !       Called as exception handler
;  1430     1421  1 !
;  1431     1422  1 ! Input Parameters:
;  1432     1423  1 !
;  1433     1424  1 !       SIGNAL_VECTOR
;  1434     1425  1 !       MECH_VECTOR
;  1435     1426  1 !
;  1436     1427  1 ! Implicit Inputs:
;  1437     1428  1 !       none
;  1438     1429  1 !
;  1439     1430  1 ! Output Parameters:
;  1440     1431  1 !       none
;  1441     1432  1 !
;  1442     1433  1 ! Implicit Outputs:
;  1443     1434  1 !       none
;  1444     1435  1 !
;  1445     1436  1 ! Routine Value:
;  1446     1437  1 !
;  1447     1438  1 !       SS$_RESIGNAL
;  1448     1439  1 !
;  1449     1440  1 ! Routines Called:
;  1450     1441  1 !
;  1451     1442  1 !       RUNDOWN
;  1452     1443  1 !       LIB$SIG_TO_RETURN
;  1453     1444  1 !
;  1454     1445  1 ! Side Effects:
;  1455     1446  1 !
;  1456     1447  1 !       Closes open files and dealloceates memory
;  1457     1448  1 !
;  1458     1449  1 !--
;  1459     1450  1
;  1460     1451  2     BEGIN
;  1461     1452  2
;  1462     1453  2     LOCAL
;  1463     1454  2         CONDITION_CODE : BLOCK [ 4,BYTE ];
;  1464     1455  2
;  1465     1456  2     ! Get the condition code
;  1466     1457  2     !
;  1467     1458  2     CONDITION_CODE = .SIGNAL_VECTOR [ CHF$L_SIG_NAME ];
;  1468     1459  2
;  1469     1460  2     ! If an unwind is in progress simply clean-up and return
;  1470     1461  2     !
;  1471     1462  2     IF .CONDITION_CODE EQLU SS$_UNWIND
;  1472     1463  2     THEN
;  1473     1464  3         BEGIN
;  1474     1465  3         RUNDOWN();
;  1475     1466  3         RETURN SS$_RESIGNAL;
```

```
;  1476        1467  2          END;
;  1477        1468
;  1478        1469       ! Do we signal errors or just return
;  1479        1470       !
;  1480        1471       IF .CONV$AB_FLAGS [ CONV$V_SIGNAL ]
;  1481        1472       THEN
;  1482        1473           BEGIN
;  1483        1474           IF .CONDITION_CODE [ STS$V_SEVERITY ] EQL STS$K_SEVERE
;  1484        1475           THEN
;  1485        1476               RUNDOWN();
;  1486        1477           END
;  1487        1478       ELSE
;  1488        1479           IF .CONDITION_CODE [ STS$V_SEVERITY ] EQL STS$K_SUCCESS
;  1489        1480           OR .CONDITION_CODE [ STS$V_SEVERITY ] EQL STS$K_INFO
;  1490        1481           THEN
;  1491        1482               RETURN SS$_CONTINUE
;  1492        1483           ELSE
;  1493        1484               LIB$SIG_TO_RET ( .SIGNAL_VECTOR,.MECH_VECTOR );
;  1494        1485
;  1495        1486       ! If a signal then call resignal
;  1496        1487       !
;  1497        1488       RETURN SS$_RESIGNAL
;  1498        1489
;  1499        1490  1    END;


                                    000C 00000 CONDITION_HANDLER:
                                                .WORD   Save R2,R3                              ;  1411
                                53      04  AC  D0 00002          MOVL    SIGNAL_VECTOR, R3      ;  1458
                                52      04  A3  D0 00006          MOVL    4(R3), CONDITION_CODE
                          00000920      8F      52  D1 0000A      CMPL    CONDITION_CODE, #2336  ;  1462
                                                0C  13 00011      BEQL    1$
                                0E  0000G   CF      E9 00013      BLBC    CONV$AB_FLAGS, 2$      ;  1471
        04          52          03          00  ED 00018      CMPZV   #0, #3, CONDITION_CODE, #4     ;  1474
                                            25  12 0001D      BNEQ    5$
                          FF6C  CF              00  FB 0001F 1$:  CALLS   #0, RUNDOWN            ;  1476
                                            1E  11 00024      BRB     5$                     ;  1471
        01          52          03          00  ED 00026 2$:  CMPZV   #0, #3, CONDITION_CODE, #1     ;  1479
                                            07  13 0002B      BEQL    3$
        03          52          03          00  ED 0002D      CMPZV   #0, #3, CONDITION_CODE, #3     ;  1480
                                            04  12 00032      BNEQ    4$
                                50          01  D0 00034 3$:  MOVL    #1, R0                 ;  1482
                                            04  00037      RET
                                    08  AC  DD 00038 4$:  PUSHL   MECH_VECTOR                ;  1484
                                        53  DD 0003B      PUSHL   R3
                          00000000G     00      02  FB 0003D      CALLS   #2, LIB$SIG_TO_RET
                                50      0918    8F  3C 00044 5$:  MOVZWL  #2328, R0              ;  1488
                                                04  00049      RET                            ;  1490

; Routine Size:  74 bytes,    Routine Base:  _CONV$CODE + 06D5

;  1500        1491  1
```

```
;  1502          1492  1 %SBTTL  'COPY_DESC'
;  1503          1493  1 ROUTINE COPY_DESC ( DESC ) : CL$COPY_DESC =
;  1504          1494  1
;  1505          1495  2     BEGIN
;  1506          1496  2
;  1507          1497  2     LOCAL
;  1508          1498  2         BYTES           : LONG,
;  1509          1499  2         LENGTH          : LONG,
;  1510          1500  2         BUFFER          : REF VECTOR [ ,BYTE ],
;  1511          1501  2         COPY_DESC       : REF BLOCK [ ,BYTE ];
;  1512          1502  2
;  1513          1503  2     GLOBAL REGISTER
;  1514          1504  2         ADDRESS = 1     : LONG;
;  1515          1505  2
;  1516          1506  2     LENGTH = STR$ANALYZE_SDESC_R1( .DESC );
;  1517          1507  2
;  1518          1508  2     ! Allocate a vm for a descriptor and a copy of the users string
;  1519          1509  2     !
;  1520          1510  2     BYTES = .LENGTH + 8;
;  1521          1511  2
;  1522          1512  2     ! Get the address of the descriptor
;  1523          1513  2     !
;  1524          1514  2     COPY_DESC = CONV$$GET_VM( .BYTES );
;  1525          1515  2
;  1526          1516  2     ! The string is just past that
;  1527          1517  2     !
;  1528          1518  2     BUFFER = .COPY_DESC + 8;
;  1529          1519  2
;  1530          1520  2     ! Stuff length
;  1531          1521  2     !
;  1532          1522  2     COPY_DESC [ DSC$W_LENGTH ] = .LENGTH;
;  1533          1523  2
;  1534          1524  2     ! Stuff address
;  1535          1525  2     !
;  1536          1526  2     COPY_DESC [ DSC$A_POINTER ] = .BUFFER;
;  1537          1527  2
;  1538          1528  2     ! Copy the user string
;  1539          1529  2     !
;  1540          1530  2     CH$MOVE( .LENGTH,.ADDRESS,.BUFFER );
;  1541          1531  2
;  1542          1532  2     ! Return address of descriptor
;  1543          1533  2     !
;  1544          1534  2     RETURN .COPY_DESC
;  1545          1535  2
;  1546          1536  1     END;


                                007C   8F  BB 00000 COPY_DESC:
                                                       PUSHR   #^M<R2,R3,R4,R5,R6>                     ;  1493
                           00000000G   00  16 00004            JSB     STR$ANALYZE_SDESC_R1            ;  1506
                                 52    50  D0 0000A            MOVL    R0, LENGTH                      ;
                                 50  08  A2  9E 0000D         MOVAB   8(R2), BYTES                    ;  1510
                                       50  DD 00011           PUSHL   BYTES                           ;  1514
                                     0000G 30 00013           BSBW    CONV$$GET_VM                    ;
```

```
                     5E              04  C0 00016        ADDL2   #4, SP                                          ;
                     56              50  D0 00019        MOVL    R0, COPY_DESC                                   ;
                     50        08    A6  9E 0001C        MOVAB   8(R6), BUFFER                                   ; 1518
                     66              52  B0 00020        MOVW    LENGTH, (COPY_DESC)                             ; 1522
                 04  A6              50  D0 00023        MOVL    BUFFER, 4(COPY_DESC)                            ; 1526
                60   61              52  28 00027        MOVC3   LENGTH, (ADDRESS), (BUFFER)                     ; 1530
                     50              56  D0 0002B        MOVL    COPY_DESC, R0                                   ; 1534
                           007C      8F  BA 0002E        POPR    #^M<R2,R3,R4,R5,R6>                             ; 1536
                                         05 00032        RSB                                                     ;

; Routine Size:  51 bytes,    Routine Base:  _CONV$CODE + 071F

; 1547          1537  1
; 1548          1538  0 END     ELUDOM



;                                       PSECT SUMMARY
;
;       Name                    Bytes                           Attributes
;
;  _CONV$OWN                     204  NOVEC,  WRT,  RD ,NOEXE,NOSHR,  LCL,  REL,  CON,  PIC,ALIGN(2)
;  _CONV$PLIT                      4  NOVEC,NOWRT,  RD ,NOEXE,  SHR,  LCL,  REL,  CON,  PIC,ALIGN(2)
;  _CONV$CODE                   1874  NOVEC,NOWRT,  RD ,  EXE,  SHR,  LCL,  REL,  CON,  PIC,ALIGN(2)



;                                   Library Statistics
;
;                                        --------  Symbols  --------      Pages       Processing
;       File                             Total     Loaded    Percent     Mapped      Time
;
;  _$255$DUA28:[SYSLIB]LIB.L32;1          18619        114          0       1000       00:01.9
;  _$255$DUA28:[CONV.SRC]CONVERT.L32;1      165         25         15         17       00:00.2



;                                       COMMAND QUALIFIERS

;       BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LIS$:CONVCALL/OBJ=OBJ$:CONVCALL MSRC$:CONVCALL/UPDATE=(ENH$:CONVCALL)

; Size:          1874 code + 208 data bytes
; Run Time:         00:45.7
; Elapsed Time:     02:14.3
; Lines/CPU Min:     2020
; Lexemes/CPU-Min: 31811
; Memory Used:  297 pages
; Compilation Complete
```

COBRMSBLO
LIS

COBSPANC
LIS

COBSWITCH
LIS

COBRESTVA
LIS

CONVSHR
MAP

CONVCOMIO
LIS

COBSETSWI
LIS

CONVDEF
MDL

CONVLINK
REQ

COBSPANC2
LIS

CONV

CONVERT
MAP

CONVCALL
LIS

COBVECTOR
LIS

CONVERT
REQ

RECLAIM
MAP

ADDKEY
LIS